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99TH CONGRESS
1st Session

SENATE

REPORT
99-161

ELECTRIC CONSUMERS PROTECTION ACT OF 1985

OCTOBER 22 (legislative day, OCTOBER 21), 1985.—Ordered to be printed

Mr. McCLURE, from the Committee on Energy and Natural Resources, submitted the following

REPORT

together with

ADDITIONAL AND MINORITY VIEWS

[To accompany S. 426]

The Committee on Energy and Natural Resources to which was referred the bill (S. 426) to amend the Federal Power Act to provide more protection to electric consumers, having considered the same, reports favorably thereon with an amendment to the text and recommends that the bill as amended do pass.

The amendment is as follows:

Strike out all after the enacting clause and insert in lieu thereof the following:

That this Act may be referred to as the "Electric Consumers Protection Act of 1985".

SEC. 2. Section 7(a) of the Federal Power Act (16 U.S.C. 800(a)), as amended, is further amended—

(a) by inserting "original" after "hereunder or"; and

(b) by striking "and in issuing licenses to new licensees under section 15 hereof".

SEC. 3. Section 10 of the Federal Power Act (16 U.S.C. 803), as amended, is further amended—

(a) in existing subsection (a) after "water power development,", by inserting "for the adequate protection, mitigation, and enhancement of fish and wildlife,";

(b) in existing subsection (a) after "including", by inserting "irrigation, flood control, water supply and"; and

(c) by redesignating existing subsection (a) as paragraph (a)(1) and by inserting the following new paragraphs:

"(2) In order to ensure that the project adopted will be best adapted to the comprehensive plan described in paragraph (a)(1), the Commission shall consider:

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"(A) the extent to which the project is consistent with a comprehensive plan (where one exists) for improving, developing or conserving a waterway or waterways affected by the project that is prepared by—

"(i) an agency established pursuant to Federal law that has the authority to prepare such a plan; and

"(ii) the State in which the facility is or will be located; and

"(B) the recommendations of Federal and State agencies exercising administration over fish and wildlife, flood control, navigation, irrigation, recreation and cultural resources of the State in which the project is located, and the recommendations of Indian tribes affected by the project.

"(3)(A) Upon receipt of an application for a license, the Commission shall solicit recommendations for proposed terms and conditions to be included in the license from the agencies and Indian tribes identified in paragraph (a)(2) of this section.

"(B) If any recommendation for a proposed term or condition is received by the Commission at least 30 days prior to issuing any license under this section, the Commission shall explain in writing its reason for rejecting or modifying any such proposed term or condition.".

SEC. 4. Section 15 of the Federal Power Act (16 U.S.C. 808), as amended, is further amended—

(a) by striking subsection (a) through "terms and conditions to a new licensee," and inserting in lieu thereof:

"SEC. 15(a). If the United States does not, at the expiration of the existing license, exercise its right to take over, maintain and operate any projects or projects of the licensee, as provided in section 14 of this Act, the Commission may issue a new license to the existing licensee upon such terms and conditions, taking into account existing structures and facilities, as may be authorized or required under the then existing laws and regulations, or to another applicant under said terms and conditions. If the existing licensee applies for a new license, the Commission shall issue a new license to such existing licensee unless the Commission determines that the plans of another applicant are better adapted to serve the public interest. If the existing licensee does not apply for a new license, the Commission shall issue a new license to the applicant the plans for which are best adapted to serve the public interest. In either case, the Commission shall not issue a license unless it is satisfied that (1) the applicant is able to carry out such plans and (2) the plans represent a cost effective approach to achieving the benefits to be derived therefrom.

"(b) The Commission shall make its determination of which plans are best adapted to serve the public interest on the basis of—

"(1) how each plan would develop, conserve, and utilize the water resources of the region in accordance with the provisions of section 10(a) of this Act;

"(2) the relative economic impact upon customers served by each applicant upon the failure of such applicant to receive the license, including an assessment of the economic impact upon the customers of an applicant that is the existing licensee that would result from the difference between the compensation to be paid under subsection (c) of this section and the cost of replacement power;

"(3) the economic impact, in the case of a non-utility license holder, upon the operation, and efficiency of the dependent industrial facility or related activity, its existing employees, and the surrounding community, if the existing licensee fails to receive the new license;

"(4) the ability of each applicant to operate and maintain the project in a manner most likely to provide efficient, reliable electric service; and

"(5) the need of each applicant for the electricity generated by the project or projects to serve its existing customers including customers served by any electric utility which receives power from the existing licensee.";

(b) by redesignating the remainder of subsection (a) as subsection (c);

(c) by striking "which license" and inserting in lieu thereof "A license issued under this section";

(d) by redesignating existing subsection (b) as subsection (d);

(e) by adding a new subsection:

"(e) A new license may only be issued for a period not to exceed thirty years unless the Commission determines that a longer period is necessary due to substantial new construction or significant redevelopment of the project in question. In no case shall a new license be issued for a period of more than fifty years."; and

(f) by adding a new subsection:

"(f) Notwithstanding any other provision of this section, for projects using tribal lands embraced within Indian reservations, the original license for which was issued prior to October 1, 1985 and for which a new license has not yet become effective by such date, the Commission shall not consider the factors set forth in sections 15(b)(2) and 15(b)(5) in evaluating the plans of Indian tribes to which such lands belong that apply for a new license.".

SEC. 5. The amendments made by this Act shall not apply to any relicensing proceeding in which the Federal Energy Regulatory Commission has issued an order awarding a new license on or before July 31, 1985, regardless of whether such order is subject to judicial review, nor shall they operate to diminish the amount of the annual charge to be paid pursuant to section 10(e) of the Federal Power Act to Indian tribes for the use of their lands within Indian reservations.

SEC. 6. Section 30 of the Federal Power Act (16 U.S.C. 824), as amended, is further amended by striking subsection (b) and inserting in lieu thereof the following new subsection:

"(b) Exemptions granted under subsection (a) of this section shall be granted for a period not to exceed thirty years unless the Commission determines that a longer period is necessary due to substantial new construction or significant redevelopment of the project in questions. In no case shall an exemption be granted for a period of more than fifty years. The Commission may not grant any such exemption to any facility the installed capacity of which exceeds 15 megawatts.".

SEC. 7. Section 405 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2705), as amended, is further amended in subsection (d) by inserting at the end thereof:

> "Exemptions shall be granted for a period not to exceed thirty years unless the Commission determines that a longer period is necessary due to substantial new construction or significant redevelopment of the project in question. In no case shall an exemption be issued for a period of more than fifty years."

SEC. 8. Section 6 of the Federal Power Act (16 U.S.C. 799), as amended, is further amended after "fifty years" by inserting "unless the Commission determines a shorter period is desirable".

SEC. 9. The amendments made by sections 6 and 7 of this Act shall apply only to exemptions granted after the date of enactment of this Act.

SEC. 10. Section 3(17) of the Federal Power Act (16 U.S.C. 796(17)), as amended, is further amended—

(a) by adding a new paragraph (B) as follows:

"(B) Notwithstanding paragraph (A), no hydroelectric project shall be considered a small power production facility (other than for purposes of section 210(e) of the Public Utility Regulatory Policies Act of 1978) if such project impounds or diverts the water of a natural watercourse other than by means of an existing dam or diversion, unless:

"(i) such project is located at a Government dam; or

"(ii) such project meets terms and conditions set by fish and wildlife agencies under the same procedure as provided for under section 30(c) of the Federal Power Act;

"(iii) for the purposes of this paragraph, the term 'existing dam or diversion' means any dam or diversion that is part of a project for which a license has been issued on or before the enactment of this paragraph, or which the Commission determines does not require any construction or enlargement of impoundment structures (other than repairs or reconstruction) except for the addition of flashboards (or similar adjustable devices);"; and

(b) by redesignating the existing paragraphs.

SEC. 11. Section 26 of the Federal Power Act (16 U.S.C. 820), as amended, is further amended—

(a) by redesignating existing section 26 as "section 26(a)"; and

(b) by adding the following new subsections:

"(b) The Commission may—

"(1) after opportunity for a hearing on the record revoke for significant violation of its terms any permit, license, or exemption issued pursuant to this Part; and

"(2) issue such other orders as it deems necessary to ensure compliance with the provisions of this Part, or of any lawful regulation or order promulgated thereunder, or of any permit, license, or exemption issued pursuant to this Part.

"(c) The Commission may institute proceedings in the district court of the United States in the district in which the project or part thereof is situated for the purpose of enforcing an order of the Commission under subsection (b) of this section. The court shall have the same powers as provided for under subsection (a) of this section.".

SEC. 12. Nothing in this Act shall be construed as authorizing the appropriation of water by any Federal, State, or local agency, Indian tribe, or any other entity or individual. Nor shall any provision of this Act—

(a) affect the rights or jurisdiction of the United States, the States, Indian tribes, or other entities over waters of any river or stream or over any groundwater resource,

(b) alter, amend, repeal, interpret, modify, or be in conflict with any interstate compact made by the States, or

(c) otherwise be construed to alter or establish the respective rights of States, the United States, Indian tribes, or any person with respect to any water or water-related right.

PURPOSE

As ordered reported, S. 426 would amend the Federal Power Act (49 Stat. 863., 16 U.S.C. 791a–825r) to clarify that the preference for applications by States and municipalities provided in section 7(a) of the Federal Power Act does not apply to the issuance by the Federal Energy Regulatory Commission (FERC) of a new license for a previously licensed hydroelectric project. In addition, S. 426 provides for explicit consideration of certain criteria in the licensing of hydroelectric projects and prescribes certain procedures which shall be adhered to by the FERC in the licensing process. S. 426 also addresses the length of time for which licenses and exemptions may be granted by the FERC and gives the FERC authority to revoke licenses and permits for significant violations of terms and conditions. S. 426 also protects the rights of Indian tribes affected by licensed hydroelectric projects and denies the financial incentives of the Public Utility Regulatory Policies Act of 1978 to small hydroelectric projects built at new dams or diversions unless certain requirements are met. Finally, S. 426 ensures that nothing in the Act, nor the amendments to existing law made by the Act, can be construed to alter the respective rights of States, the Federal Government, local agencies, Indian tribes, or any other entity or individual regarding water rights.

BACKGROUND AND NEED

Pursuant to the Federal Power Act (originally the Federal Water Power Act of 1920) licenses are issued by the Federal Energy Regulatory Commission (FERC) to non-Federal public and private entities for the construction and operation of hydroelectric power projects. Such licenses may be issued for a term of up to 50 years. At the end of the term for the initial license, a new license may be issued for the project, or the United States may "takeover" maintenance and operation of the project. If a new license is issued, it may go to the original licensee or to a new licensee.

Section 7(a) of the Federal Power Act recognizes that the issuance of a license may be the subject of competition between applicants, and it directs the Commission to choose that application which it finds "best adapted to develop, conserve, and utilize in the public interest the water resources of the region. . . ." In the event that the Commission finds competing applications equally well adapted, "the Commission shall give preference to applications therefore by States and municipalities. . . ." Until original licenses began to expire in growing numbers, there was no controversy over the application of section 7's "municipal preference" in relicensing situations. (There is no controversy over the application of municipal preference for initial licenses.)

On June 27, 1980, the FERC held in Opinion 88 that section 7(a) of the Federal Power Act provided a preference to municipalities over non-municipalities, including the original licensee, in relicensing proceedings. The FERC concluded that the Federal Power Act required it to issue successor licenses to a municipality so long as its plans are equal, or could be made equal, to the plans of a non-municipal applicant, including the original licensee. This was upheld by the 11th Circuit Court on September 17, 1982. On July 6, 1983, the Supreme Court denied all petitions for certiorari.

On October 6, 1983, in Opinion 191, the FERC reversed its finding that municipal preference applies in relicensing. The Commission held that its earlier municipal decision was erroneous and should be overruled. That decision was appealed to the U.S. Court of Appeals for the District of Columbia Circuit. The Court has not yet ruled.

Although the relicensing issue has been largely couched in terms of the municipal preference, the crux of the issue is who will receive the extremely valuable rights to the power produced from the facility up for relicensing. At the end of the license term, normally 50 years, the original cost of the hydroelectric project has been depreciated to only a fraction of its original cost. A license is issued by the FERC without cost, although there are some relative minor expenses involved in preparing a license application. Compared to the price of alternative power, for example that from a new base load thermal facility, the price of power from hydroelectric facilities is de minimus. In the *Merwin Dam* case, for example, the FERC computed the long-term replacement value at $732 million, as compared to the transfer price of approximately $11 million.

Although testimony before the Committee on the issue of potential consumer impact for license transfers differed, commonsense suggests that significant numbers of license transfers could cause material rate increases for the customers of existing licensees. This conclusion is supported by a September 16, 1985, General Accounting Office study [1] which examined the cost impacts of license transfers and which was prepared at the request of Representative Edward J. Markey. For the customers of a utility, the loss of a hydroelectric license means higher electricity prices. For a utility gaining a license to an existing facility, a windfall is received. Thus the relicensing debate has largely divided along the lines of "haves" versus "have nots," with overtones of public power versus private power.

Interest in this issue has been heightened because of the large number of licenses which are due to expire in the next few years. Between now and the year 2000, 294 licenses will expire which involve 502 dams with a production capacity of 3,629 megawatts. These licenses are held by both investor-owned utilities and municipalities. Approximately 40 percent of the total installed licensed capacity in the United States is held by public power corporations; 55 percent is held by investor-owned utilities; direct industrial end-users, other private developers and rural electric cooperatives hold the remainder. Current license holders—both private and public—are concerned that the licenses for their facilities may be lost as a result of the current relicensing process.

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[1] The study appears in the appendix to this report.

Investor-owned electric utilities are particularly concerned that they will lose their licenses because of municipal preference. This concern is particularly keen as the bulk of licenses expiring over the next 15 years are held by investor-owned utilities. Loss of a license by either a privately-owned or publicy-owned utility would not only increase electricity rates to its customers, it might also adversely affect the utility's overall system reliability.

An argument was raised that there should be no preference at all in relicensing and that the public interest would be best served by open competition to determine the best adapted plan. The record, however, demonstrates that the public interest is not necessarily enhanced by competition. Because relicensing concerns existing facilities, there are practical limitation on project improvements and thus the potential scope of relicensing competition. By comparison, in initial licensing the possibilities for competition are greater because projects to be licensed have generally not been constructed. In addition, because of the value of the hydroelectric resource, open competition could result in spurious but expensive "improvements" as a cover for raiding by utilities willing to invest sums solely to acquire relatively cheap power.

Based on its comprehensive review, the Committee concludes that the public interest would be best served by legislation which tends to favor existing licensees, both privately owned and publicly owned, rather than another person. The Committee also concludes that some limited competition for licenses may provide incentives for licensees to improve their proposal for the development of the project. Because the FERC has the authority under existing law, regardless of who acquires the new license, to require such improvements as it deems necessary and appropriate, the Committee concludes that requiring the FERC to respond on the record to comments from Federal and State agencies concerned with resource protection is the best protection of the public interest.

LEGISLATIVE HISTORY

99TH CONGRESS

S. 426 was introduced on February 7, 1985, by Senator Wallop; S. 403 was introduced on February 6, 1985 by Senator Johnston; S. 1219 was introduced on May 24, 1985 by Senator Metzenbaum and S. 1260 was introduced on June 7, 1985 by Senator Evans.

A hearing on S. 426, S. 403, S. 1219, and S. 1260 was held before the Subcommittee on Water and Power on June 11, 1985, at which time Commissioner Anthony G. Sousa of the Federal Energy Regulatory Commission supported enactment of a bill.

The Senate Committee on Energy and Natural Resources, in open business session on July 31, September 11, and October 2, 1985, considered S. 426. By majority vote of a quorum present during the open business session on October 2, 1985, the Committee ordered reported S. 426 with an amendment in the nature of a substitute.

Related legislation, H.R. 44 by Mr. Shelby, H.R. 1815 by Mr. Matsui, and H.R. 1959 by Mr. Miller of California is pending before the House Subcommittee on Energy Conservation and Power of the Committee on Energy and Commerce. A "framework" hearing on the relicensing issue was held before the Subcommittee on June 5, 1985, with legislative hearings held on June 25 and July 30, 1985.

98TH CONGRESS

Two bills, S. 2710 and S. 2711 were introduced in the Senate and referred to the Committee on Energy and Natural Resources with no further action.

Three bills were introduced in the House, H.R. 4402, H.R. 5299, and H.R. 5416. A hearing on the House bills before the Subcommittee on Energy Conservation and Power of the Committee on Energy and Commerce took place on May 17, 1984, with no subsequent action.

COMMITTEE RECOMMENDATION AND TABULATION OF VOTES

The Senate Committee on Energy and Natural Resources, in an open business session on October 2, 1985, by majority vote of a quorum present, recommended that the Senate pass S. 426, if amended as described herein.

The rollcall vote on reporting the measure was 16 yeas and 1 nay as follows:

YEAS	NAYS
Mr. McClure	Mr. Metzenbaum [1]
Mr. Hatfield [1]	
Mr. Domenici	
Mr. Wallop	
Mr. Warner	
Mr. Murkowski [1]	
Mr. Nickles	
Mr. Hecht	
Mr. Evans	
Mr. Johnston	
Mr. Bumpers	
Mr. Ford	
Mr. Melcher	
Mr. Bradley [1]	
Mr. Bingaman [1]	
Mr. Rockefeller	

[1] Indicates vote by proxy.

COMMITTEE AMENDMENT

The Committee struck all after the enacting clause of S. 426, and inserted a substitute text in lieu thereof. As ordered reported, S. 426 amends both the Federal Power Act, as amended (FPA) and the Public Utility Regulatory Policies Act of 1978 (PURPA).

As originally introduced, S. 426 amended the FPA. It provided that the municipal preference that applies upon initial licensing of a hydroelectric project, does not apply in relicensing. It also modified the criteria that the Federal Energy Regulatory Commission (FERC) uses in selecting new licensees from among competing license applicants. Finally, S. 426 provided that in instances where an existing licensee does not receive the new license for a project, the existing licensee would be compensated by the new licensee under a Constitutional "just compensation" standard, instead of the existing statutory standard of net investment plus severence damages.

The Committee amendment retains the provision that the municipal preference does not apply in relicensing. The amendment further provides that in cases where an existing licensee and a competing applicant submit relicensing applications that are equally well adapted the new license shall be awarded to the existing licensee. The amendment addresses the factors that the FERC must take into account in the licensing process for both initial and new licenses. It modifies the length of new license periods, and places a limit on the period of exemptions. If denys PURPA financial benefits to projects constructed at new dams, unless they comply with certain conditions. It provides the FERC with authority to revoke a permit, license or exemption for significant violations of term and conditions and with the authority to enforce such revocations in court. Finally, the amendment also contains a savings provision regarding water.

The Committee amendment amends the FPA and PURPA as follows:

Section 2 amends section 7(a) of the FPA to provide that the Act's municipal preference does not apply when a new license is issued for a project that had been previously licensed.

Section 3 amends section 10 of the EPA to express as explicit statutory language certain of FERC's existing practices under that section. Section 10 presently requires the FERC to license the proposed project which, in its judgment, is the one that is the "best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of waterpower development, and for other beneficial public use, including recreational purposes". In accordance with applicable judicial and administrative precedent interpreting this language, FERC's practice has been to consider the effect of the proposed project on, among other considerations, fish, wildlife, irrigation, flood control and water supply, both in selecting licensees from among competing applicants and in setting license terms and conditions under section 10. By making these conditions explicit, section 3 does not impose any new duties or obligations beyond those which the FERC is already subject to under existing law nor would it modify current FERC practice.

Section 3 also amends section 10 of the FPA to create a statutory procedure under which the FERC is required to consider the recommendations of certain agencies and Indian tribes affected by hydroelectric projects. This procedure is closely consistent with existing FERC practices. First, section 10, as amended, directs FERC to consider the extent to which a project is consistent with a comprehensive plan or plans for the waterway(s) prepared by appropriate agencies authorized to conduct such planning pursuant to Federal or State law. Agencies such as the Northwest Power Planning Council and the river basis commissions are intended to be included under this provision. In the case where comprehensive plans have been prepared by an agency established pursuant to Federal law, and by the state in which the project is located, each plan must be considered. Second, the section requires the FERC to consider the recommendations of Federal and State agencies which exercise jurisdiction over subject matter enumerated in the provision (e.g. flood control, recreation, etc.) and Indian tribes affected by the project. Third, in order to ensure that the agencies and Indian tribes described above have the opportunity to make their views known, the section directs FERC to solicit recommendations from them. Finally, the section requires the FERC, when issuing a license, to provide a written explanation as to why it has rejected or modified any recommendations for terms and conditions on a license of such agencies and Indian tribes. This provision does not place any additional requirements on the FERC to adopt or to reject any particular recommendation. It only requires the FERC to state the reasons for its decision.

In making explicit certain aspects of current law and practice, the bill does not alter the original purpose of the FPA; nor does it diminish, alter or expand the provisions of other applicable law (e.g. the Nothwest Power Planning and Conservation Act, the Fish and Wildlife Coordination Act, etc.).

Section 4 amends section 15 of the FPA which deals with the issuance of new licenses for existing projects. It requires the FERC to issue a new license to the existing licensee, unless it determines that the plans of another applicant are better adapted to serve the public interest. The FERC's determination as to which plan is best adapted to serve the public interest is to be made on the basis of the factors enumerated in the section.

Section 4 also requires the FERC, when setting terms and conditions in relicensing, to consider as a parameter on section 10 of the FPA the fact that the project's structure and facilities are already present, and that terms and conditions, if any, are to be set in that context. The Committee intends that the FERC look at the situation as it is, and not as if the project had not been constructed.

In setting out the criteria to be used by FERC in selecting a new licensee from among competing applicants in relicensing, the Committee balanced the desire to have existing licensed projects improved through competition with the potentially disruptive effect which the loss of an existing license might have on the current holder and its customers. The five factors contained in section 15 of the FDA, as amended by the bill, are the exclusive criteria for new licensee selection. Because the Committee realizes that the importance of any single factor would vary from case to case, the bill does not specify the weight that the FERC must give to any of these criteria.

The first criterion requires the FERC to consider the directives contained in section 10(a) of the FPA.

The second criterion requires the FERC to assess the negative economic impact of the loss of the project on the customers of each applicant. In this context, the FERC is specifically directed to consider the difference between the compensation which would be due the existing licensee under the net investment plus severance damages standard of FPA section 15(c) and the cost of replacement power for the existing licensee. The Committee added this directive, in lieu of the provision providing just compensation to the existing licensee, in order to encourage a degree of competiton while retaining consideration of the real costs of the loss of a project to the customers of the existing licensee. The Committee intends the meaning of "cost of replacement power" to be the long term cost of alternative sources of electric generation over the term of the license.

The third criterion recognizes the difference between utility-owned and industrial-owned projects by requiring the FERC to examine the economic impact on the dependent industrial facility, its employees, and the surrounding community if the existing industrial licensee fails to receive the new license.

The fourth criterion directs the FERC to consider the ability of each applicant to operate and maintain the project in a manner most likely to provide efficient, reliable electric service. The Committee expects the FERC to consider the project under this criterion in the context of each applicant's integrated system of electric service. This consideration should include no only the efficiency and reliability of electricity provided to customers, but also the ability of each applicant to operate the project in coordination with other projects on the watercourse.

The final criterion requires the FERC to consider the need for the electricity generated by the project to serve the existing customers of each applicant. The Committee intends that "existing customers" include all customers served by the existing licensee under existing contracts, including those customers served by long-term contractual agreements who reside outside the service area of such licensee. The Committee does not intend that any applicant be given an advantage in the selection process by reason of a short-term demand surplus or shortage, or short-term availability of lower cost power from alternative sources of supply such as Federal power marketing administrations.

Section 4 of the bill changes existing statutory law by generally limiting new license terms to 30 years unless the Commission determines that a longer period is necessary due to substantial new construction or significant redevelopment of the project in question. In no case can new licenses be issued for more than 50 years. These changes adopt the FERC's existing policy concerning new license terms.

Section 4 of the bill also exempts the plans of Indian tribes from certain criteria contained in the amendments to FPA section 15 to maintain the opportunity of tribes to acquire licenses.

Section 5 of the bill provides that the amendments made by this act shall not apply to any relicensing proceeding in which the FERC has issued an order awarding a new license on or before July 31, 1985, regardless of whether such order is subject to judicial review. This provision is intended to exempt all relicensing proceedings for the Merwin Dam Hydroelectic Project, FERC Project Nos. 935 and 2791, from the provision of the Senate bill. This amendment recognizes the unique facts of that proceeding in which the applicants filed their applications for the new Merwin license during 1976–1977 under the provisions of then-existing law and completed a competitive evidentiary hearing presided over by a FERC Administrative Law Judge. In view of the advanced state of the *Merwin* proceeding and in fairness to the legitimate expectations of the competing applicants, all Merwin relicensing proceedings should continue to be governed by provisions of pre-existing law, including any proceedings following remand by the courts to FERC, until the competition for the Merwin license is finally resolved.

The remaining language of section 5 provides that the amendments made by this Act shall not operate so as to diminish the amount of the annual charge to be paid pursuant to section 10(e) of the FPA to Indian tribes for the use of their lands within Indian reservations. This language ensures that tribes will continue to receive the annual charge to be paid pursuant to FPA section 10(e) for the use of lands within Indian reservations.

Section 6 amends section 30 of the FPA to allow the FERC to issue conduit exemptions for a period not to exceed 30 years unless it determines that a longer period is necessary due to substantial new construction or significant redevelopment. In no case may an exemption be for more than 50 years.

Section 7 amends section 405 of PURPA to allow the FERC to issue exemptions for projects which are five megawatts or smaller for a period not to exceed 30 years unless it determines that a longer period is necessary due to substantial new construction or significant redevelopment. In no case may an exemption be for more than 50 years.

Under existing law, exemptions under section 30 of the FPA and section 405 of PURPA are perpetual. By limiting future exemptions to a finite period, the Committee intends there to be a general examination of exemption terms and conditions upon expiration of the exemption period. However, the Committee does not intend to allow competition in the issuance of a new exemption.

Section 8 amends section 6 of the FPA to allow the FERC to issue an initial license for a period shorter than 50 years if the FERC determines a shorter period is desirable.

Section 9 makes it clear that sections 6 and 7 of this Act apply only to exemptions granted after the date of enactment of this Act regardless of whether they are final as of that date.

Section 10 amends the definition of "small production facility" contained in section 3(17) of the FPA. Section 10 provides that no hydroelectric project, other than one located at an existing dam, may receive PURPA benefits (other than the regulatory exemption provided by PURPA section 210(e)) unless the project is located at a Government dam or unless the project meets such mandatory fish and wildlife terms and conditions as may be established by the U.S. Fish and Wildlife Service and the State agency exercising administration of the fish and wildlife resources of the State in which the facility is located.

The Committee does not intend section 10 to apply to projects which have received an exemption from licensing or which receive exemptions in the future since all such projects must already satisfy mandatory terms and conditions set by fish and wildlife agencies.

Under section 10 of the bill, terms and conditions set by fish and wildlife agencies pursuant to new section 3(17)(B)(ii) of the Federal Power Act would not constitute terms and conditions of the license for the project, but would rather be prerequisites (where applicable) for receiving the benefits of qualifying status under PURPA (other than the regulatory exemption provided under section 210(e) of PURPA).

The Committee is aware that various proceedings are pending before the FERC concerning projects that would be affected by enactment of this bill. The Committee expects the FERC to use existing authority to establish procedures to prevent disruptions of pending proceedings.

Section 11 amends section 26 of the FPA to authorize the FERC, after opportunity for a hearing on the record, to revoke a permit, exemption or license for a significant violation of its terms. The Committee does not expect the FERC to use this new authority frequently. To the contrary, the Committee believes that the mere grant of this authority will give the FERC and ability to enforce the terms and conditions of its licenses, exemptions and permits more effectively through use of less severe alternatives such as negotiated settlements. The Committee expects the FERC to use this new revocation authority in a prudent and restrained manner and only in those instances where it is clearly justified. The Committee does not intend the word "significant" to include technical violations of terms and conditions. Moreover, in the normal course of events the Committee would expect FERC to give the licensees, exemptee, or permittee a reasonable period of time to remedy any violations which may occur. Revocation proceedings must include opportuntiy for a hearing "on the record" thus making the proceedings subject to the Administrative Procedures Act (5 U.S.C. 554).

This section also gives the FERC authority to issue such orders as may be necessary to ensure compliance. It also gives the FERC new authority to institute proceedings in the District Court of the United States for the District in which the project is situated to enforce an order necessary to ensure such compliance.

Section 12 provides that nothing in this Act shall be construed to authorize appropriation of water or (1) affect the rights and jurisdiction of the United States, or the States, Indian tribes, or other entities over waters of any river or stream or groundwater resources, (2) any interstate compact made by the States, or (3) otherwise alter or establish the rights of the United States, the States, Indian tribes, or any person with respect to any water or water-related right. The Committee added this section in order to ensure that the amendments made to the FPA and PURPA by this Act do not affect the current status of the law with respect to water or water-related rights.

Finally, it should be noted that nothing in the bill would create any impediment to voluntary wheeling agreements.

COST AND BUDGETARY CONSIDERATIONS

The following estimate of costs of this measure has been provided by the Congressional Budget Office:

U.S. CONGRESS,
CONGRESSIONAL BUDGET OFFICE,
Washington, DC, October 2, 1985.

Hon. JAMES A. MCCLURE,
Chairman, Committee on Energy and Natural Resources,
U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has reviewed S. 426, the Electric Consumers Protection Act of 1985, as ordered reported by the Senate Committee on Energy and Natural Resources, October 2, 1985.

This bill clarifies federal policies governing the licensing of hydroelectric facilities by the Federal Energy Regulatory Commission (FERC). Because most of the standards and procedures specified in the bill are consistent with current practices, CBO estimates that enactment of S. 426 would have no significant effect on federal, state, or local government budgets. The budgetary impact of authorizing FERC to enforce license terms directly (rather than indirectly through the Department of Justice) is not expected to be significant.

If you wish further details on this estimate, we will be pleased to provide them.

With best wishes,
Sincerely,

JAMES BLUM,
(For Rudolph G. Penner, Director).

REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of Rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out S. 426. The bill is not a regulatory measure in the sense of generally imposing additional Government-established standards or significant economic responsibilities on private individuals and businesses. However, enactment of S. 426 would impose some additional regulatory requirements upon developers who seek to receive financial benefits under the Public Utility Regulatory Policies Act of 1978 for projects built at other than existing dams. In addition, S. 426 would limit the duration of exemptions from licensing thereby requiring regulatory activities at the expiration of the exemption period.

No additional personal information would be collected in administering the licensing program as a result of the enactment of S. 426, therefore there would be no impact on personal privacy.

Some additional paperwork for the Federal Energy Regulatory Commission would occur as a result of the bill's requirement to address specific criteria in relicensing proceedings and the requirement to explain in writing the reasons for rejecting or modifying license conditions suggested by Federal and State agencies and Indian tribes.

EXECUTIVE COMMUNICATIONS

On April 17, 1985, the Committee requested legislative reports on S. 426 from the Federal Energy Regulatory Commission and the Office of Management and Budget. The reports received from the Federal Energy Regulatory Commission are set forth below. Also set forth, in order to provide additional information for the benefit of the Senate are responses by the Federal Energy Regulatory Commission to questions posed by Senators Johnston, Murkowski, and Evans; and a report from the Department of Justice setting forth its views on S. 1219.

Official Committee File

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

May 22, 1985

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
RECEIVED
WASHINGTON, DC 20510

Honorable James A. McClure
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

In response to your request to Chairman O'Connor that the Commission study and provide a report on S. 403, the Hydroelectric Facility Relicensing Amendments of 1985, and S. 426, the Electric Consumers Protection Act of 1985, I am submitting the following staff comments on these bills. These comments do not necessarily represent the views of the Commission as a whole or any Commissioner. I am pleased to enclose with this report a copy of testimony prepared by Commissioner Sousa and answers to questions prepared in connection with a congressional hearing on similar legislation in the 98th Congress.

S. 403 and S. 426 amend the Federal Power Act (FPA) with respect to the relicensing of non-Federal hydroelectric projects. Both bills contain provisions addressing municipal preference, competition, and standards for relicensing, and reflect to a certain extent the decision in Pacific Power & Light Company, Opinion and Order Overruling Opinion No. 88, Reversing Initial Decision and Issuing New License to Original Licensee, 25 FERC ¶ 61,052 (1983), rehearing denied, 25 FERC ¶ 61,290 (November 22, 1983) (Merwin), which sets forth the Commission's interpretation of Sections 7(a), 10(a), and 15(a) of the FPA. In addition, S. 426 changes the standard for compensation of the existing licensee by a prevailing license challenger.

Municipal Preference:

Existing law, as interpreted in Merwin, applies the state/municipal preference of Section 7(a) of the FPA on relicensing against all non-municipal applicants other than the existing licensee.

Both S. 403 and S. 426 eliminate the state/municipal preference in all relicensing cases, whether or not the existing licensee is an applicant.

Competition at Relicensing:

Under existing law, as interpreted in Merwin, when the existing licensee is competing, the new license is to be issued to the applicant whose plans are best adapted to comprehensive development of the waterway under Section 10(a) of the FPA. No provision currently exists to break a tie between the plans of the existing licensee and a competitor should the Commission find both plans equally well adapted.

S. 403 gives the existing licensee, public or private, first option to the new license at the relicensing stage unless a competitor submits a better adapted plan. When competing plans are found equally well adapted, the tie would be broken in favor of the existing licensee.

S. 426 grants a new license to the existing licensee as long as the Commission determines, taking into account the public benefits provided during the preceding license term, that its application meets the standard of Section 10(a). If it finds that the existing licensee's application is not best adapted, the Commission would be authorized to issue a license to a competing applicant.

Standards Applied to Relicensing Applications:

Under the current law, the merits of competing proposals are judged by the Section 10(a) standard of which proposal is best adapted to comprehensive development of the waterway for beneficial public purposes.

S. 403 establishes a new standard of "better adapted to serve the public interest" and provides four criteria to be used in making the public interest determination. The Commission must consider: 1) the applicant's plans to develop, conserve, and use the waterway; 2) the economic impact on the applicant's customers if it fails to get the license; 3) the applicant's ability to operate the project efficiently; and 4) the applicant's need for the power to serve existing customers.

S. 426 uses the existing Section 10(a) comprehensive development standard, with consideration of public benefits provided during the preceding license term, to judge the existing licensee's application.

Compensation:

Current law provides that, when the original licensee is displaced, the new licensee must pay the original licensee its net investment plus severance damages. The Commission has not yet had occasion to define "severance damages."

H.R. 403 has no provision on compensation; therefore, current law would continue to apply.

H.R. 426 would require the new licensee to pay an amount determined by the Commission under due process to be just compensation.

Additional Considerations:

Both bills elaborate the statutory language of the FPA and would provide helpful guidance for the Commission in its relicensing procedures. However, there are a few areas where the bills raise questions for Commission staff, and the Committee might wish to focus particular attention on them in an attempt to avoid ambiguity:

(1) On the issue of competition, while it is clear both bills intend to and do eliminate the municipal preference in all relicensing proceedings, there appears to be uncertainty regarding what procedures the Commission would be expected to follow under the language of S. 426. The question that the language raises is whether the Commission is to judge the existing licensee's plans juxtaposed to other competitors' plans to determine if it is the best adapted plan, or if the existing licensee's plans are to be judged in isolation against a Commission-developed blueprint of what the best adapted plan should be. Congressional Record statements by Senator Wallop and by Representative Shelby, who introduced the identical bill in the House of Representatives (H.R. 44), indicate that the former interpretation, that the existing licensee's plans are to be judged against those of competitors, is intended. If so, the same procedure would be followed as in S. 403; the plans of all competitors would be judged together. The results of this process under the two bills would differ only if the plans of the existing licensee and a competitor were equally well adapted. In that case, S. 403 directs that the license be granted to the existing licensee. S. 426 does not provide guidance for a tie such as this.

While S. 403 clearly provides a preference to the existing licensee by granting it the license in the case of a tie, any preference in S. 426 would occur through consideration of public benefits provided during the preceding license term, or through the procedure imposed if the existing licensee's plans are to be judged in isolation.

(2) Additional questions are presented by the criteria set forth in S. 403 by which the Commission is to make its public interest determination. As Senator Johnston pointed out in his remarks in the Congressional Record, the first criterion is basically a restatement of the § 10(a) standard. The other criteria are likewise already subsumed under § 10(a). These criteria, therefore, are duplicative and unnecessary and may restrict the Commission's evaluation. However, if they were to be enacted, it would be helpful to have specific direction from Congress that the full scope of § 10(a) is to be included under the new standard; substantial case law exists defining the parameters of § 10(a) which would be useful in applying the new standard.

(3) The compensation standard of S. 426 is likely to provide more reasonable compensation to the existing licensee from the new licensee than would the current standard, which may not be adequate to allow the existing licensee's ratepayers to replace the generating capacity lost on relicensing. The just compensation standard would allow the Commission the flexibility to determine what the fair value of the lost project is to the existing licensee, and is more likely to ensure compensation commensurate to the actual loss in the event of a takeover than may be possible under the net investment plus severance damages compensation standard. Furthermore, by providing a standard that is not rigid in its interpretation, S. 426 allows the Commission the discretion required to assess values that will differ from project to project, a critical authority that is precluded under some compensation schemes that have been proposed. Of course, if Congress prefers a standard less open to interpretation, the specific standard to be used, such as replacement value, should be made clear in the legislation.

I hope these comments will be helpful to your committee. I will be available to discuss this legislation with you further should you desire.

Sincerely,

Christopher J. Warner

Christopher J. Warner
Associate General Counsel
Legislation, Regulation and
Congressional Affairs

Enclosures

Enclosure 1

STATEMENT OF
A. G. SOUSA, COMMISSIONER
FEDERAL ENERGY REGULATORY COMMISSION
BEFORE THE
SUBCOMMITTEE ON ENERGY CONSERVATION
AND POWER
OF THE
COMMITTEE ON ENERGY AND COMMERCE
UNITED STATES HOUSE OF REPRESENTATIVES

May 17, 1984

Mr. Chairman and Members of the Subcommittee:

I appreciate this opportunity to appear before you to discuss the background to the issue of municipal preference in relicensing proceedings at the Commission, and the three relevant bills pending before this Subcommittee. The three bills are:

-- H.R. 4402, the "Electric Utility Consumers Protection Act of 1983";

-- H.R. 5299, the "Public Interest Hydroelectric Facility Relicensing Reform Act of 1984"; and

-- H.R. 5416, the "Electric Utility Competition Act of 1984."

At the outset, I would like to emphasize that this testimony represents my own views and not necessarily those of any other Commissioner or of the Commission as a whole.

I. Background to the Issue of Municipal Preference in Relicensing Proceedings

A. Introduction

The Commission's considerations of municipal preference in relicensing proceedings have begun with the pertinent sections of the Federal Power Act ("Act"), primarily sections 7(a) and 15(a). Concerning selection from among competing applicants for a site in such proceedings, section 7(a) of the Act states in pertinent part:

> [I]n issuing licenses to new licensees under section 15 hereof the Commission shall give preference to applications therefor by States and municipalities, provided the plans for the same are deemed by the Commission equally well adapted.... (Emphasis added.)

Section 15 prescribes what the Commission shall do upon the expiration of a license. Section 15(a) states in pertinent part:

> [A]t the expiration of the original license... the Commission is authorized to issue a new license to the original licensee upon such terms and conditions as may be authorized or required under the then existing laws and regulations, or to issue a new license under said terms and conditions to a new licensee....

The relicensing issue has been, quite simply, whether the term "new licensee," as used in section 7(a), includes an "original licensee," as used in section 15(a). If it does, then the section 7(a) "municipal preference" applies against original licensees in relicensing proceedings. If it does not, then municipal preference applies only against other new non-municipal license applicants. As will be evident by the end of this section, I firmly believe that it does not.

B. Chronology

On several occasions, beginning almost 30 years ago, the Commission has publicly expressed its views on the Act's relicensing provisions.

On March 1, 1957, the entire Commission appeared before the House Committee on Interstate and Foreign Commerce. At that time, the Committee was considering a bill which would have amended section 15 of the Act to provide that an original licensee has the first option to renew its license in the event the United States does not exercise its option to recapture the project as provided in section 14 of the Act. During the hearing, Commission Chairman J. K. Kuykendall advised the Committee that the Commission thought the amendment was not necessary because the Act already provided original licensees this right. [Agency Hearings Before the House Comm. on Interstate and Foreign Commerce, 85th Cong., 1st Sess. 190 (1957).] Later that year, Chairman Kuykendall reiterated the Commission's position during hearings on his reappointment. [Nomination of Jerome K. Kuykendall to Federal Power Commission: Hearings before the Senate Comm. on Interstate and Foreign Commerce, 85th Cong., 1st Sess. 337-338 (1957).]

Ten years later, in 1967, the Commission reported to Congress that the Act confers no municipal preference when a municipality competes against an original licensee in a relicensing proceeding. In a letter signed by Chairman Lee White, and on the advice of its General Counsel, the Commission stated:

> [T]his preference applies only after it has been determined that the original licensee should not receive a new license. In those instances where the original licensee and another applicant seek a new license for the same project, the Commission believes that the new license is to be issued to whichever applicant can best meet the standards of the Act. In those rare cases where the applicants are equally matched, the Commission believes that the new license should be issued to the original licensee so long as he can meet the standards of the Act at least as well as the other applicant.

[Letter from Lee White, Chairman of the Federal Power Commission, to the Hon. John W. McCormack, Speaker of the House (August 28, 1967), reprinted in H.Rep. No. 1643, 90th Cong., 2d Sess. 6 (1967).]

The next year, Congress amended sections 7, 14 and 15 of the Act. Although those amendments pertained to the recapture of expired licenses by the United States, the Senate Committee on Commerce had heard, during the course of the hearings, considerable testimony on the question of municipal preference in relicensing proceedings. In that regard, the Committee reported that it was impressed by the testimony of the Commission, and quoted from the letter to which I just referred. [S. Rep. No. 1338, 90th Cong., 2d Sess. 3 (1968).] In addition to agreeing with the Commission's interpretation, the Committee further reported:

> Continuity of ownership and management is desirable to avoid possible interruption of service resulting from the severance of a project from an integrated system, the upsetting of existing tax patterns which are a substantial source of revenue to many communities, the dislocation of jobs, and other possible adverse results. Granting of the license to a different licensee can only be justified when the existing licensee is unable or unwilling to carry out whatever modifications are found to be necessary for comprehensive development of the waterway or to meet the standards of the act.

[Id. at 3-4.]

In 1976, the Commission had its first opportunity to consider the applicability of the municipal preference in a contested proceeding in which an investor-owned utility had applied for a new license for an existing facility. That license was also being sought by a cooperative.

Under review was a decision by a Commission administrative law judge who had held that the language of the Act clearly restricts the application of the section 7(a) preference provision to situations where the original licensee does not seek renewal. [55 F.P.C. 1276 (1975).] In its decision, the Commission declined to address the issue, which had been rendered moot by the judge's decision, affirmed by the Commission, that the cooperative did not qualify as a municipality. [Carolina Power and Light Co., 55 F.P.C. 1272 (1976).] The Commission further stated that "[t]his issue should be addressed in a proceeding where there are parties who will be affected by the application of the preference issue." [Id. at 1274.]

In 1978, the Commission was presented with that opportunity. In the summer of that year, the Cities of Bountiful, Utah, and Santa Clara, California, which had filed competing applications for projects owned and operated by Utah Power & Light Company and Pacific Gas & Electric Company, respectively, filed petitions for a declaratory order. They requested that the Commission determine formally whether section 7(a) of the Act provides a preference for municipalities who file in competition with non-municipal original licensees for a new license pursuant to section 15.

The Commission consolidated these petitions, and gave notice that it would attempt to resolve "a purely legal issue, a question of statutory construction which in no way hinges upon the facts of a particular case." ["Order Granting Interventions and Setting Briefing Schedule," City of Bountiful, Utah, Docket No. EL78-43, at 2 (May 3, 1979).] Since this declaratory proceeding involved only a matter of law, not fact, the Commission did not hold any evidentiary hearing. It did, however, solicit briefs and hear oral arguments although it was not required to do so by law. The oral argument took place on February 22, 1980.

Nineteen parties participated in the declaratory proceeding, including Clark-Cowlitz Joint Operating Agency (CCJOA), a municipality that was established in 1976 to compete for Pacific Power & Light Company's (PP&L's) Merwin Project (PP&L's Project No. 935 and CCJOA's Project No. 2791). In part, CCJOA participated by filing an initial brief, a reply brief, and a supplemental reply brief on July 30, 1979, October 10, 1979, and December 22, 1980, respectively.

On June 27, 1980, the Commission issued Opinion No. 88 -- its declaratory order construing the statute. [Opinion and Order Declaring Municipal Preference Applicable to Hydro-Electric Relicensings, City of Bountiful, Utah, 11 FERC ¶ 61,337 (1980) ("Bountiful").] In brief, the Commission determined that the same municipal preference that exists for initial licenses applies also in relicensing cases. In other words, the Commission declared that municipalities have a relicensing preference against all non-municipal applicants, including original licensees in possession of the project works.

On August 21, 1980, the Commission issued Opinion No. 88-A, denying rehearing of Opinion No. 88. [12 FERC ¶ 61,179 (1980).] Four Commissioners had voted on Opinion No. 88; on rehearing, one of the three who participated voted present. In Opinion No. 88-A, the Commission stated it had "attempted to give full effect to the general purpose of Section 7(a) in the context of Part I of the Federal Power Act, and reflected then on the lengthy and occasionally opaque legislative history." [Id. at 61,460.]

Thirty-eight privately-owned utilities appealed Opinion Nos. 88 and 88-A to the United States Court of Appeals for the Eleventh Circuit. The Court affirmed these opinions in Alabama Power Co. v. FERC, 685 F.2d 1311 (11th Cir. 1982). Recognizing that the legislative history was "weak," the court gave "great deference to the Commission's statutory interpretation." [Alabama Power v. FERC, supra, at 1317, 1318.]

In early 1983, a number of parties who had been before the Eleventh Circuit then filed a petition for writ of certiorari with the Supreme Court of the United States, seeking review of the Eleventh Circuit's decision. Traditionally, whenever the Commission has been a participant in litigation, it decides whether and to what extent it should participate before the Supreme Court. In other words, it decides what litigation position it should take. This is true whether the Commission "loses" or "wins" in the lower court.

Accordingly, on April 18, 1983, the Commission gave notice of its intent to hold a closed meeting on April 25 to develop its litigation position with respect to the petitions for writ of certiorari in Alabama Power Co. v. FERC (restyled as Utah Power & Light Co. v. FERC, S. Ct. Nos. 82-1312 et al.). The Commission closed the meeting to the public, as is customary when discussing litigation strategy, under Exemption 10 of the Sunshine Act, 5 U.S.C. § 552b(c)(10), and the Commission's regulations, 18 C.F.R. § 375.205(a)(10)(1983).

Subsequently, several individuals, including CCJOA, asked for a transcript of the closed meeting. After that request was refused, CCJOA filed suit in the United States District Court for the District of Columbia. The court affirmed the decision to withhold public disclosure of the transcript. [See Clark-Cowlitz Joint Operating Agency v. FERC, C.A. No. 83-1842 (September 14, 1983) ("CCJOA v. FERC").] CCJOA appealed the decision to the United States Court of Appeals for the D. C. Circuit (No. 83-2111). That case has been briefed but has not yet been argued.

As requested by Chairman Ottinger, a copy of the transcript of the closed meeting has been provided to this Subcommittee along with a request to protect its confidentiality. As stated in the letter of transmittal, the transcript has been provided in the same spirit that it was provided to the courts -- for in camera review but not for public release. I cannot emphasize enough the importance of maintaining the confidentiality of the transcript. Public dissemination would have a chilling effect on the Commission in trying to carry out its regulatory responsibilities, would impair its future litigation posture before the courts, and would weaken its own internal decisionmaking process. Speaking for myself, I will be very reluctant to express my views frankly and freely in future closed meetings.

The matter of the closed meeting transcript is separate from the issue of municipal preference in relicensing proceedings, and is also very important. In this regard, what is at stake is the integrity of the Commission's, and other agencies', closed meeting procedures. In enacting the Sunshine Act with its exemptions, Congress wisely balanced the public's need to know what its government officials are doing against the need for those officials to discuss privately certain matters such as litigation strategy. Since I believe this Subcommittee appreciates that balance, I am confident its members will honor the request of confidentiality.

In light of that request, any comments from me on the discussion at the closed meeting would also be inappropriate. However, I refer the Subcommittee to the District Court's decision, which has been attached to the transcript. Significantly, in regard to the propriety of the discussions at the closed meeting, the court said:

> After a thorough in camera inspection, it is evident to the Court that the April 25th meeting involved open and candid discussions concerning the possible agency positions in the pending petition for certiorari. The Commissioners met to discuss all the available options and possible repercussions with counsel and came to a final conclusion on the agency's litigation strategy. Certainly, the discussions that took place at the Commission on April 25, 1983, involved matters Congress wanted to exclude when it drafted Exemption 10 of the Sunshine Act.

[CCJOA v. FERC, supra, slip op. at 11.] In regard to the assertion that the Commission went far beyond the range of the limited exemption by discussing certain matters, namely CCJOA's pending license application before the Commission, the court said:

> What was discussed by the Commission during the closed meeting of the plaintiff's pending licensing application was entirely limited in scope. Plaintiff's application was discussed only in the context of handling the licensing preference issue. The Commission correctly limited its discussions to that of the Utah Power certiorari petition on how the licensing preference issue related to that petition.

[Id. at 13.]

Pursuant to the direction of the Commission at the closed meeting, the Commission's Solicitor requested the Solicitor General of the United States to ask the Supreme Court to grant certiorari, vacate the ruling of the Eleventh Circuit, and remand the case to the Commission. The Solicitor General requested the Court to grant certiorari, vacate the judgment of the court of appeals, and remand the case to that court for such reconsideration as it deemed appropriate. As indicated in the Solicitor General's brief, the Commission made its request because it wished to reconsider the case, and a majority of the Commissioners appeared to be ready to overrule Opinion Nos. 88 and 88-A and adopt a contrary position. On July 6, 1983, the Supreme Court denied the petitions for certiorari. [Utah Power & Light Co. v. FERC, 103 S. Ct. 3573 (1983).]

On October 6, 1983, the Commission issued Opinion No. 191, which dealt with the competing applications for the Merwin Dam hydropower project, which had been licensed since 1929 to PP&L (and its predecessor). [Pacific Power & Light Co., Opinion and Order Overruling Opinion No. 88, Reversing Initial Decision and Issuing New License to Original Licensee, 25 FERC ¶ 61,052 (1983) ("Merwin"), rehearing denied 25 FERC ¶ 61,290 (November 22, 1983).] Under review was an initial decision by a Commission administrative law judge, which had been issued three days after the April 25, 1983 closed meeting. [23 FERC ¶ 63,037 (1983).] The judge had found that PP&L's application and the application of its municipal competitor, CCJOA, were substantially the same. Applying the municipal preference, he awarded the project to CCJOA.

In Merwin, the Commission reversed the judge's decision and unanimously held that he erred in dismissing the economic impacts of the transfer of the license on the ratepayers of PP&L. The Commission found that under sections 7(a) and 10(a) of the Act, the selections of the licensee and the best adapted comprehensive plan are to be based on the same public interest standard. The Commission concluded that "the expressed scope of the [s]ection 7(a) public interest inquiry is subsumed within the broader scope of the [s]ection 10(a) public interest inquiry." [25 FERC at 61,187 (emphasis in original).] Therefore, inasmuch as section 10(a) requires the Commission to examine closely all factors affecting the public interest, the Commission considered the economic impacts of the transfer of the license from PP&L to CCJOA. Since the record evidence overwhelmingly showed that the adverse economic impacts on PP&L's customers by such transfer far outweighed the adverse economic impacts on CCJOA's customers, the Commission awarded the new license to PP&L. In this regard, even CCJOA's witnesses at the hearing testified that PP&L's customers would have to pay significantly more money than CCJOA's customers would save over both the long and short terms.

Also, a majority of the Commission, including myself, voted to overrule the Bountiful order, because we concluded it was legally erroneous. Accordingly, the majority held that the Act mandates that municipalities have a relicensing preference against all non-municipal applicants except "original licensees" in possession of the project works. In so holding, the majority pointed out that its decision was neither gratuitous nor obiter dictum even though the Commission had found unanimously that the new Merwin license should be issued to PP&L. Firmly believing that the Bountiful decision was erroneous, the majority wanted to ensure that the correct preference provisions would be applied in future relicensing proceedings, a number of which were pending at that time.

In addition, the majority found no legal impediment to overruling Bountiful. First, an agency may clarify or reverse a prior statutory interpretation, even one of longstanding duration, provided the agency identifies the interpretation with which it disagrees and articulates its rationale. This is particularly true where the initial interpretation was not arrived at in the context of a fact-based proceeding. Second, the Supreme Court had not ruled on the merits of the Eleventh Circuit's affirmance of the Commission's erroneous Bountiful decision. As the late Justice Felix Frankfurter said, denial of a petition for a writ of certiorari means:

> [F]ewer than four members of the Court thought it should be granted.... [A] denial carries with it no implication whatever regarding the Court's view on the merits of a case which it has declined to review. The Court has said this again and again; again and again the admonition has to be repeated.

[Maryland v. Baltimore Radio Show, Inc., 338 U.S. 912, 919 (1950), quoted in Opinion No. 191, 25 FERC at 61,178.]

C. Conclusion

In light of the potential impact of relicensing on American consumers, it was incumbent on me to help correct what I saw as a serious error. In brief, that error was a misinterpretation of sections 7(a) and 15(a) of the Act by my predecessors on the Commission. As I indicated earlier, the meaning of those sections is plain. Section 7(a) directs a preference to states and municipalities in issuing licenses under section 15(a) to "new licensees." Section 15(a) makes a clear distinction between an original licensee and a new licensee. The language of sections 7(a) and 15(a) leave no doubt in my mind that the preference is available only when the original licensee does not seek renewal of its license.

Fortunately, the administrative process in this country provides for flexibility and the opportunity for regulatory bodies and other decisionmakers to reconsider their decisions. Those provisions are healthy and important aspects of our system of government. However, there is also a need for certainty. The people subject to regulations and laws would be ill served by their government officials if those officials ignored that need. Therefore, it was also incumbent on me to try to provide some certainty in the area of relicensing, which potentially affects literally millions of ratepayers throughout the country. Inasmuch as the

Bountiful decision was a declaratory order which by definition neither gave anything to nor took anything away from anyone, its reversal was required at the earliest possible opportunity following the denial of certiorari by the Supreme Court. That opportunity was the Merwin decision.

Admittedly, if I had been given an opportunity to "write on a clean slate," I would not have chosen the present construction of sections 7(a) and 15(a) of the Act. In other words, if I were a legislator and not a regulator charged with the responsibility of implementing legislation, I would have preferred a statute that would give the original licensee the first option of a new license for an existing facility, provided that licensee satisfied strict public interest standards. Besides being less disruptive, that would have been the fairest approach and one most in the public interest, since the existing licensee has nothing to gain but its ratepayers have much to lose in a relicensing proceeding. However, I am a regulator. As such, I am required to follow the mandate of Congress. Accordingly, I voted to overrule Bountiful in order to effectuate the plain meaning of the Act, which affords neither a first option to the original licensee nor a preference to a municipality as against the original licensee in relicensing proceedings.

II. Pending Bills on the Issuance of New Licenses to Operate Existing Non-Federal Hydroelectric Facilities

A. H.R. 4402

This bill, the "Electric Consumers Protection Act of 1983," would amend section 7 of the Act by deleting reference to section 15, which covers relicensing. The effect of this amendment would be to eliminate municipal preference in all relicensing cases, whether or not the existing licensee is an applicant. As stated previously, in Merwin, the Commission held that the current statute provides for a municipal preference in relicensing proceedings except against the existing licensee.

Further, H.R. 4402 would amend section 15 pertaining to the procedures for considering relicense applications. The Commission would consider, within the context of the standards in section 10(a) of the Act, the existing licensee's plans for the next license term. If the Commission determined, taking into account the public benefits provided during the preceding license term, that these plans complied with section 10(a) standards, it would issue a new license to the existing licensee. If the Commission determined that the existing licensee's plans did not comport with section 10(a), it would be authorized to issue the new license to a competing applicant. In the event a competing applicant received the new license, it would be required to pay the existing licensee "just compensation" for taking possession of the project works. Just compensation would be determined by the Commission "in accordance with due process of law."

This legislation has much to recommend it. First, it reflects the current statutory provision, as interpreted by the Commission in Merwin, that municipal preference does not apply in relicensing proceedings against existing licensees. Second, it would eliminate municipal preference from all relicensing proceedings. This legislation is based on sound and reasonable policy considerations. There is simply no persuasive reason why the Congress should direct that every municipal applicant should be favored over every non-municipal applicant in every relicensing case. Viewed from another perspective, why should the ratepayers of municipal utilities always be favored over the ratepayers of regulated investor-owned utilities?

The public's interest in the comprehensive development of water resources for various beneficial uses would be adequately protected by the relicensing procedure set forth in H.R. 4402. Section 10(a) mandates an extensive and intensive inquiry into all factors relevant to the public interest in the development of the power potential of our Nation's water resources to ensure that the plan approved by the Commission is "best adapted" to serve that interest. This provision would be fully applicable to any existing licensee's relicensing plans. Moreover, the Commission would have authority to impose such terms and conditions as it found necessary to ensure that the "best adapted" standard of section 10(a) would be fulfilled in the new license term. Finally, proceedings on an existing licensee's relicensing plans would remain open to intervention by persons and organizations with a sufficient interest, including competing applicants, who would be free, as they are now, to raise issues relevant to the relicensing decision. These proceedings could therefore acquire that adversarial character which is often useful in sharply defining issues and fully developing facts.

The current statutory formula of net investment plus severance damages may not be adequate to compensate an existing licensee fairly (and thereby protect its ratepayers) for the loss of its project. Whether it is adequate depends primarily upon the definition of "severance damages" in section 14 of the Act. The Commission has not yet had occasion to define that term. H.R. 4402 would require the Commission to determine, in any relicensing case in which the new license is awarded to a new licensee, the amount constituting "just compensation" to the existing licensee. This provision would seem to give the Commission more certain authority to ensure that the existing licensee is fairly compensated, and its ratepayers not unjustly disadvantaged, in the event the new license is awarded to a new licensee.

B. H.R. 5299

H.R. 5299, the "Public Interest Hydroelectric Facility Relicensing Reform Act of 1984," would direct issuance of a new license for an existing project to the applicant whose plans are best adapted to serve the public interest. In making this public interest determination, the Commission would be directed to consider the following three factors:

a) the plans to develop the affected water resources to meet various purposes, including environmental and recreational purposes;

b) the economic impact of a relicensing decision on the ratepayers of the competing applicants; and

c) "the electricity consumption efficiency improvement programs" of the applicants.

This bill would create a preference on relicensing for municipalities, applicable against existing licensees, in the event the Commission finds that the competing applicants' plans are equally well adapted to serve the public interest. H.R. 5299 would also modify the current recapture payment provision of section 14 of the Act. Under this modification, a challenger to an existing licensee's relicensing application would have the option to agree to pay a greater amount upon recapture than that specified in the net investment-severance damages formula. This greater amount would then be taken into account by the Commission in determining the economic impact on the existing licensee's ratepayers of losing the hydroelectric project.

Addressing the municipal preference provision first, the public interest would not be advanced by imposing a preference for all municipal applicants over all non-municipal applicants in relicensing proceedings. Each case should be decided on its individual merits. The notion of a fixed statutory bias favoring a particular category of applicants in all cases is fundamentally antithetical to this principle of deciding each case on its own merits. Moreover, the particular content of the bias proposed by H.R. 5299 appears to be without justification. As the Commission held in Merwin, the public interest lies in ensuring that as many consumers as possible should receive the benefits of inexpensive hydroelectricity without regard to whether they are served by public agencies or regulated privately-owned utilities.

Of the three substantive factors which H.R. 5299 would explicitly require the Commission to take into account in relicensing proceedings, the first two are covered under the current statute. Thus, in Merwin, the Commission undertook a broad inquiry into the competing applicants' plans to utilize the hydroelectric project for various beneficial public purposes, including fish and wildlife conservation, flood control, power, and recreation. Additionally, the Commission held that the economic impact of the relicensing choice on the consumers of the competing applicants was relevant. Indeed, it was primarily because the evidentiary record in Merwin demonstrated that the overall economic costs to the existing licensee's ratepayers of losing the project would greatly exceed the overall economic benefits to the competing applicant's ratepayers of gaining the project, that the Commission concluded the public interest strongly favored issuance of the new license to the existing licensee.

The third substantive factor is the "electricity consumption efficiency improvement" record and plans of each applicant. This is to include a consideration of an electric utility applicant's "conservation measures" and "load management techniques." In addition, the Commission is to consider the performance of the utility in "assisting its ratepayers in acquiring" cost-effective electricity consumption efficiency improvements.

This third relicensing criterion would significantly and unwisely expand the Commission's jurisdiction under Part I of the Act. First, an electric utility's policies and practices in restraining load growth has no necessary relevance to the question of which relicensing plan for utilization of the affected hydroelectric resource will be best adapted to the public interest -- a question that must be answered under section 10(a). Section 10(a) is intended to achieve the most beneficial use, with respect to a variety of goals (conservation, recreation, commerce, power, etc.), of the affected waterway. Control of electricity demand, however, concerns a utility's overall retail sales policies and practices, which encompass its entire resource base -- hydroelectric, coal, nuclear, purchased power, etc.

Second, Commission inquiry into a utility's control of electric load growth would take the Commission not only beyond the scope of its Part I responsibilities, but also beyond the traditional scope of its responsibilities under Part II of the Act. Control and handling of load growth is relevant to the prudence of management decisionmaking and this is an area that is in turn relevant to regulation of rates. This regulation is apportioned between Federal and state governments, with the former having jurisdiction of interstate wholesale rates and the latter having jurisdiction of retail rates. By far the greatest number of electric transactions entail retail sales and are thus within the domain of state commissions. H.R. 5299, by putting the Commission into an area primarily and traditionally covered by retail rate regulations, would upset a long-standing Federal-state balance that has heretofore prevailed in this particular area of utility regulation.

Third, this bill raises a significant question of proportionality. Would it be wise and prudent to allow the filing of a relicensing application for any hydroelectric project, no matter how small, to provide the springboard for a fullscale inquiry into a utility's entire policies and operations with respect to control and handling of electric load growth? Should, for example, the relicensing of a 10 MW hydroelectric project be held hostage to such an inquiry?

Turning to this bill's modification of the takeover payment, the provision allowing a possible negotiated agreement of an amount greater than that which would be required under the current net investment-severance damages formula would not guarantee fair compensation to the existing licensee. Agreement may or may not ever be reached in any given case. Absent agreement, the current provisions of section 14 would still apply. As stated above, there is some doubt, due to the cryptic language of section 14, whether the current payment formula adequately protects the existing licensee. To the extent that H.R. 5299 allows rather than requires payment of an amount sufficient to ameliorate adverse economic consequences to the existing licensee's ratepayers, it does not go far enough toward ensuring justice in the event of a takeover.

C. H.R. 5416

H.R. 5416, the "Electric Utility Competition Act of 1984," would confer upon rural electric cooperatives the same preference now accorded to municipalities under the Act. Thus, such cooperatives would be favored over non-municipal and non-cooperative applicants for preliminary permits and original licenses. This bill would not, however, alter the language in sections 7 and 15 of the Act which determines whether a preference applies on relicensing against an existing licensee. The Commission has determined in the Merwin that municipal preference does not apply in such cases. Therefore, enactment of H.R. 5416 would appear to leave resolution of the relicensing preference issue to judicial review of the Commission's interpretation of the applicable statutory language in Merwin.

This bill would also add a new section 15A to the Act. Under this new provision, the Commission would be required to transmit to the Attorney General a copy of every relicensing application for advice as to whether "activities under the license would create or maintain a situation inconsistent with the antitrust laws." The Attorney General would be required to report his advice within 180 days, which would receive due consideration from the Commission. Further, the Commission would be directed to hold a hearing on this issue if such is recommended by the Attorney General or requested by any party. Any Commission finding on this issue must follow a "broad inquiry into both the past and proposed activities of the licensee applicant which shall include consideration of all anti-competitive activities of the applicant and the potential anti-competitive consequences of issuing the new license to the applicant."

To the extent it would authorize and require the Commission to consider the possible anti-competitive consequences of a particular relicensing decision, H.R. 5416 is unnecessary. In Merwin, the Commission stated that its obligation was "to weigh ... substantiated anticompetitive claims, together with all other relevant factors, in exercising its judgment in the public interest." [25 FERC at 61,202.]. In other words, anti-competitive consequences are among the factors the Commission now considers and weighs in making decisions under section 10(a). This consideration and weighing is done within the context of the particular facts of each individual case. Claims of anti-competitive impact or conduct may be raised in a variety of ways, such as by intervenors in relicensing proceedings, or indeed by any interested person at any time during the license term through the filing of a complaint under section 306 of the Act. With regard to the latter procedure, it should be noted that section 10(h) makes the following a condition of every hydroelectric license:

> That combinations, agreements, arrangments, or understandings, express or implied, to limit the output of electric energy, to restrain trade, or to fix, maintain, or increase prices for electrical energy or service are hereby prohibited.

In sum, the Commission already has authority to consider relevant anti-competitive impacts of relicensing decisions and, further, to ensure that the licensee acts consistently with antitrust policies during the license term.

H.R. 5416 is unnecessary from another perspective. The Commission now considers anti-competitive issues when the facts of the particular case indicate such an inquiry is necessary and relevant to the public interest under section 10(a). H.R. 5416, however, directs a full scale antitrust review each time a relicensing application is submitted by any applicant -- whether or not there is any basis for such a review. At the very least, therefore, the procedure of mandatory referral to the Attorney General would prolong the ultimate decision on every relicensing application filed -- including those applications for which an antitrust inquiry is obviously unnecessary.

Aside from being unnecessary, the antitrust review procedure of H.R. 5416 sweeps too broadly. As stated above, subsection (c) of the proposed new section 15A would require the Commission to hold an antitrust hearing on recommendation of the Attorney General or "on the motion of any party." In making its ultimate finding, the Commission, to reiterate, would be required to conduct a broad inquiry into past and "proposed" activities and to include consideration of "all alleged anti-competitive activities of the applicant." These provisions would subject every person or organization that submitted an application for a new license for an existing hydroelectric project to a mandatory, unlimited antitrust review of its entire operations -- past, present, and future. This review could therefore encompass matters wholly unrelated to the uses and operations of the hydroelectric project subject to relicensing. In other words, H.R. 5416 would seem to expand implicitly the scope of the Commission's jurisdiction under Part I of the Act.

There is also a serious question of proportionality with H.R. 5416. Should, for example, the Attorney General and the Commission be authorized to conduct an antitrust inquiry into the entire activities, past and present, of a major utility upon that utility's filing of a relicensing application for a 10 MW hydroelectric project? On its face, H.R. 5416 would require such an inquiry "on the motion of any party."

Finally, the proposed new section 15A is apparently modeled after a provision in the Atomic Energy Act, 42 U.S.C. § 2135. Many applicants for relicensing before the Commission may have undergone antitrust review under the Atomic Energy Act, and, to that extent, H.R. 5416 may be duplicative.

D. Conclusion

Of the three bills, H.R. 4402 is the most likely to further the public interest in the relicensing of non-Federal development of our Nation's hydroelectric resources. It reflects the Merwin holding that there is no preference for municipal applicants against existing licensees in relicensing proceedings. This is sound policy -- there is no reasonable basis for favoring customers of municipal agencies over customers of regulated investor-owned utilities. H.R. 4402 also maintains the present scope of a relicensing inquiry -- a scope which is broad enough to include every factor of relevance to the use of the affected water resource, but limited by that relevancy requirement. This relevancy limitation is important because it focuses the Commission on matters which are within its expertise, saves proceedings from interminable delays and confusion, and preserves the allocation of regulatory responsiblities inherent in our Federal system. Finally, by establishing a standard of "just compensation" for takeovers, this bill would ensure that relicensing decisions do not adversely affect innocent ratepayers.

H.R. 5416 and H.R. 5299 pose difficulties for me. Most significantly perhaps, both bills seem to reflect a belief that allocation of the benefits of hydroelectricity should be made, at least in significant part, to reward or punish applicants for activities and plans which have no necessary relevance to the utilization of the affected water resource. Implementation of this belief could lead the Commission into areas beyond its expertise, delay and confuse proceedings, and intrude into areas now regulated by other regulatory authorities.

To reiterate, Part I of the Act and, more specifically, section 10(a) quite properly focus a hydropower licensing decision on consideration of a comprehensive plan for the development of the affected waterway for various beneficial public uses. These uses include, among other things, commerce, recreation, flood control, fish and wildlife conservation and, as specifically defined in the Merwin decision, inexpensive power for electric consumers of all classifications without regard to whether they are served by public or private entities. These ends are worthwhile and significant; and I would have great difficulty with any legislation that could have the effect of subordinating them to unrelated purposes.

Enclosure 2

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

MAY 9 1984

Honorable Richard L. Ottinger
Chairman, Subcommittee on Energy
Conservation and Power
Committee on Energy and Commerce
House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

In response to your invitation to appear before the Subcommittee on Energy Conservation and Power on May 17, 1984, I have asked Commissioner A. G. Sousa to testify on behalf of the Commission because of his expertise in hydroelectric licensing matters and his experience at the Commission while relicensing policy was being formulated. The views expressed by Commissioner Sousa in his testimony will be his and not necessarily those of the rest of the Commission.

Copies of Commissioner Sousa's testimony are enclosed along with responses to the questions you submitted. If I can be of any further assistance, please let me know.

Sincerely,

Raymond J. O'Connor

Raymond J. O'Connor
Chairman

Enclosures

cc: Commissioner Sousa

Question 1. Please identify all hydroelectric facilities under license issued by the Commission since enactment of the Federal Water Power Act of 1920. Please identify these facilities by—

- — Name;
- — Ownership by name (including whether owner is a "State or municipality" or other owner);
- — Rated capacity;
- — Average annual capacity factor;
- — Location (including State and name of river);
- — Date of expiration of current license;
- — Whether and, if so, when, the facility has been relicensed.

Answer 1. The attached table lists all hydroelectric projects under license by FERC. The table includes all requested factors except the average annual capacity factor, which is not available from data presently maintained by the Department of Energy.

HYDROELECTRIC PROJECTS UNDER LICENSE
AS OF MARCH 31, 1984

The column headings are defined as follows:

P.N. - FERC Project Number

PROJ NAME - Project Name

OWNER - Name of Licensee

LT - License Type (3 alphanumeric characters)

a. The first letter is an "M", "N", or "Y"
   - M - Major License (over 1,500 kW)
   - N - Minor License (up to and including 1,500 kW)
   - Y - Minor Part

b. The second letter is an "O" indicating the license is in effect

c. The third letter is an "N" or "P"
   - N - Non-public licensee
   - P - Public licensee (state or municipality)

INST-kW 1/ Licensed and already installed capacity in kW

AUTH-kW 1/ Licensed and under construction capacity in kW

ST State

STREAM - Name of stream where project is located

ISS-DT - Date of issuance of present license

EXP-DT - Expiration date of present license (If the expiration date has passed, the project is operating under an annual license.)

NOTE: An "R" in the left margin of the table and underlining of the project number indicate that the project has been relicensed.

1/ Multiple entries in the INST-kW or AUTH-kW columns for any project indicate that there are multiple developments in that project. The total authorized project licensed capacity is the sum of all entries in the INST-kW and AUTH-kW columns for that project.

* P N.	PROJ NAME	OWNER	LT	INST-KW	AUTH-KW	ST	STREAM	ISS DT	EXP DT
***									
* 5	KERR	MONTANA POWER CO THE	MON	168000		MT	FLATHEAD	05/23/1930	05/22/1980
* 11	GREEN ISLAND	NIAGARA MOHAWK POWER CORP	MON	6000		NY	HUDSON	02/07/1977	03/02/2011
* 18	TWIN FALLS	IDAHO POWER CO	MON	8438		ID	SNAKE	06/11/1934	06/10/1984
* 20	SODA	UTAH POWER & LIGHT CO	MON	14000		ID	BEAR	07/29/1980	07/04/2003
* 67	BIG CREEK NO 2A & 8	SOUTHERN CALIFORNIA EDISON CO	MON	80000		CA	SAN JOAQUIN	08/09/1978	02/28/2009
*				58500			SAN JOAQUIN		
*					200000		TUNNEL NO.7		
* 77	POTTER VALLEY	PACIFIC GAS AND ELEC CO	MON	9040		CA	RUSSIAN E FK	10/04/1983	09/30/2033
* 82	MITCHELL	ALABAMA POWER CO	MON	72500	91500	AL	COOSA	11/26/1975	07/31/2007
* 96	KERCKHOFF	PACIFIC GAS AND ELEC CO	MON	34000		CA	SAN JOAQUIN	11/08/1979	11/30/2022
*					140000		SAN JOAQUIN		
* 108	CHIPPEWA RESVR	NORTHERN STATES POWER CO	MON	0		WI	CHIPPEWA	08/08/1921	08/07/1971
* 120	BIG CREEK NO 3&6	SOUTHERN CALIFORNIA EDISON CO	MON	141500		CA	SAN JOAQUIN	09/07/1977	02/28/2009
* 135	OAK GROVE	PORTLAND GENERAL ELEC CO	MON	51000		OR	CLACKAMAS	04/09/1980	08/31/2006
* 137	MOKELUMNE	PACIFIC GAS AND ELEC CO	MON	29700		CA	MOKELUMNE N FK	11/23/1925	11/23/1975
*				9350			MOKELUMNE N FK		
*				51000			MOKELUMNE N FK		
*				13600			MOKELUMNE N FK		
*				89100			MOKELUMNE N FK		
* 175	BALCH NO. 1&2	PACIFIC GAS AND ELEC CO	MON	133200		CA	KINGS N FK	04/10/1980	04/30/2026
* 176	BEAR VALLEY & LAKE WOHLFORD	ESCONDIDO MUTUAL WATER CO	MON	1500		CA	ESCONDIDO CR	06/25/1924	06/24/1974
*				520			ESCONDIDO CR		
*							ESCONDIDO CR		
* 178	KERN CANYON	PACIFIC GAS AND ELEC CO	MON	8480		CA	KERN	09/07/1979	04/30/2005
* 184	EL DORADO	PACIFIC GAS AND ELEC CO	MON	20000		CA	AMERICAN RIVER S FK	12/11/1980	02/23/2002
* 190	UINTA	MOON LAKE ELECTRIC ASSN	MON	1200		UT	UINTA	07/01/1930	06/30/1980
* 199	SANTEE-COOPER	SOUTH CAROLINA PUB SERV AUTH	MOP	1920		SC	SANTEE	05/09/1979	03/31/2006
*				132600			SANTEE&COOPER		
* 201	BLIND SLOUGH	PETERSBURG CITY OF	MOP	2000		AK	CRYSTAL CR	06/04/1980	11/12/2004
* 233	PIT	PACIFIC GAS AND ELEC CO	MON	140500		CA	PIT	02/26/1981	10/31/2003
*				90000			PIT		
*				74250			PIT		
* 271	CARPENTER & REMMEL	ARKANSAS PWR AND LT CO	MON	10000		AR	OUACHITA	07/02/1980	02/28/2003
*				56000			OUACHITA		
* 287	DAYTON	HYDRO-OP ONE ASSOCIATES	MON	3680		IL	FOX	08/17/1979	04/10/2004
* 289	OHIO FALLS	LOUISVILLE GAS AND EL CO	MON	80320		KY	OHIO	09/27/1981	11/10/2005
* 298	KAWEAH	SOUTHERN CALIFORNIA EDISON CO	YOM	1800		CA	KAWEAH	08/07/1924	08/06/1974

*				2000			KAWEAH		
*				2250			KAWEAH		
* 308	WALLOWA FALLS	PACIFIC POWEL & LIGHT CO	MON	1100		OR	WALLOWA E FK	03/29/1976	02/28/1986
* 309	PINEY	PENN ELEC CO	MON	20800		PA	CLARION	06/29/1979	10/12/2002
* 344	SAN GORGONIO NO 1 & NO 2	SOUTHERN CALIFORNIA EDISON CO	MON	1500		CA	SAN GORGONIO CR	05/18/1983	04/26/2003
*				750			SAN GORGONIO CR		
* 346	BLANCHARD	MINNESOTA POWER & LIGHT CO	MON	12000		MN	MISSISSIPPI	05/20/1980	08/24/2003
* 349	MARTIN DAM	ALABAMA POWER CO	MON	60000	154200	AL	TALLAPOOSA	05/31/1978	06/08/2013
* 362	TWIN CITY	FORD MOTOR CO	MON	17900		MN	MISSISSIPPI	07/22/1978	06/06/2003
* 372	LOWER TULE	SOUTHERN CALIFORNIA EDISON CO	MON	2000		CA	TULE	05/10/1978	06/14/2000
* 382	BOREL	SOUTHERN CALIFORNIA EDISON CO	MON	9200		CA	KERN	09/07/1979	02/28/2005
* 400	AMES & TACOMA	COLORADO-UTE ELE ASSN INC	MON	8000	14000	CO	ANIMAS	09/01/1981	06/30/2010
*				3600			SAN MIGUEL LAKE FK		
* 401	MOTTVILLE	MICHIGAN POWER CO	MON	1680		MI	ST JOSEPH	02/28/1978	09/10/2003
* 405	CONOWINGO	SUSQ POWER	MON	474500		MD	SUSQUEHANNA	08/14/1980	09/01/2014
* 420	KETCHIKAN LAKES	KETCHIKAN CITY OF	MOP	4200		AK	KETCHIKAN CR	06/30/1982	06/30/2000
* 432	WALTERS	CAROLINA POWER AND LT CO	MON	108000		NC	PIGEON	11/23/1926	11/22/1976
* 459	OSAGE	UNION ELECTRIC CO	MON	176200		MO	OSAGE	04/09/1981	02/28/2006
* 460	CUSHMAN NO 1 & NO 2	TACOMA CITY OF	MOP	81000		WA	SKOKOMISH N FK	06/03/1924	06/02/1974
*				43200			SKOKOMISH N FK		
* 469	WINTON	MINNESOTA POWER & LIGHT CO	MON	4000		MN	KAWISHIWI	03/13/1981	10/31/2003
* 472	ONEIDA	UTAH POWER & LIGHT CO	MON	30000		ID	BEAR	05/01/1981	06/30/2000
* 477	BULL RUN	PORTLAND GENERAL ELEC CO	MON	21000		OR	BULL RUN	05/23/1980	11/16/2004
* 485	BARTLETTS FERRY	GEORGIA POWER CO	MON	100000	65000	GA	CHATTAHOOCHEE	04/13/1978	12/14/2014
* 487	WALLENPAUPACK	PENN POWER & LIGHT CO	MON	40000		PA	LACKAWAXEN	06/19/1980	09/30/2005
* 503	SWAN FALLS	IDAHO POWER CO	MON	10400	25000	ID	SNAKE	12/22/1982	06/30/2010
* 516	SALUDA	SOUTH CAROLINA ELEC & GAS CO	MON	208750		SC	SALUDA	08/05/1927	08/04/1977
* 539	LOCK NO 7	KENTUCKY UTILITIES CO	MON	2040		KY	KENTUCKY	08/19/1926	08/18/1976
* 553	SKAGIT RIVER	SEATTLE DEPT OF LIGHTING	MOP	150000		WA	SKAGIT	10/28/1927	10/27/1977
*				122400			SKAGIT		
*				360000			SKAGIT		
* 588	GLINES CANYON	CROWN ZELLERBACH CORP	MON	12050		WA	ELWHA	06/04/1926	06/03/1976
* 596	OLMSTED	UTAH POWER & LIGHT CO	YON	10300		UT	PROVO RIVER	10/21/1925	10/20/1975
* 597	STAIRS	UTAH POWER & LIGHT CO	MON	1000		UT	BIG COTTONWOOD CREEK	03/21/1977	06/30/2000
* 606	KILARC & COW CREEK	PACIFIC GAS AND ELEC CO	MON	1440		CA	COW CREEK SOUTH	02/08/1980	03/27/2007
*				3000			COW CREEK OLD		
* 618	JORDAN	ALABAMA POWER CO	MON	100000		AL	COOSA	10/27/1980	07/31/2007
* 619	BUCKS CREEK	PACIFIC GAS AND ELEC CO	MON	33000		CA	BUCKS & GRIZZLY CR	12/19/1974	10/31/2004
* 620	CHIGNIK	ALASKA PACKERS ASSN INC	MON	50		AK	INDIAN CR	04/11/1979	10/04/2005

632	LOWER MONROE	MONROE CITY CORP	NOP	100		UT	MONROE CR	11/21/1978	02/14/2006
637	CHELAN	CHELAN COUNTY PUD NO 1	MOP	48000		WA	CHELAN	05/12/1981	03/31/2004
659	CRISP COUNTY	CRISP COUNTY POWER COMM	MOP	15200		GA	FLINT	08/14/1980	08/09/2008
662	PINEDALE	PINEDALE POWER AND LIGHT CO	MON	0		WY	PINE CR	08/27/1943	02/11/1992
663	RIO BLANCO	PUERTO RICO WTR RES AUTH	MON	5000		PR	NICACO	11/07/1920	11/06/1978
693	HIGHLANDS	HIGHLANDS TOWN OF	NOP	750		NC	CULLASAJA RIVER	07/29/1981	07/31/2016
696	AMERICAN FORK CREEK	UTAH POWER & LIGHT CO	NON	950		UT	AMERICAN FORK CR.	11/24/1975	10/31/2000
710	SHAWANO	WISCONSIN POWER AND LT CO	MON	640		WI	WOLF	07/20/1927	07/19/1977
719	TRINITY	TWO RIVERS INC	NON	240		WA	PHELPS CR	07/18/1979	10/31/2002
733	OURAY	COLORADO-UTE ELE ASSN INC	NON	432		CO	UNCOMPAHGRE	01/30/1980	04/12/2010
739	CLAYTOR	APPALACHIAN POWER CO	MON	75000		VA	NEW	08/20/1980	06/30/2011
746	AUGUSTA CITY	AUGUSTA CITY OF	YOP	0		GA	SAVANNAH	06/24/1929	06/23/1979
785	CALKINS BRIDGE	CONSUMERS POWER CO	MON	2550		MI	KALAMAZOO	09/10/1980	04/10/2010
803	DE SABLA-CENTERVILLE	PACIFIC GAS AND ELEC CO	MON	18450		CA	BUTTE CREEK	06/12/1980	10/11/2009
				6400			BUTTE CREEK		
814	BEAVER	UTAH POWER & LIGHT CO	MON	600		UT	BEAVER	07/01/1945	08/31/1979
				2400			BEAVER		
848	WELLS RURAL	WELLS RURAL ELECTRIC CO	YON	0		NV	TROUT CR	12/14/1928	12/13/1973
906	CUSHAW RES	VIRGINIA ELECTRIC & POWER CO	MON	7500		VA	JAMES	09/30/1980	06/16/2008
925	OTTUMWA	OTTUMWA CITY OF	MOP	3000		IA	DES MOINES	03/24/1982	04/30/2008
935	MERWIN	PACIFIC POWER & LIGHT CO	MON	136000		WA	LEWIS	10/06/1983	12/11/2009
943	ROCK ISLAND	CHELAN COUNTY PUD NO 1	MOP	622500		WA	COLUMBIA	05/13/1981	01/31/2028
946	HYRUM	HYRUM CITY CORP	NOP	400		UT	BLACKSMITH FORK	03/03/1981	04/30/2008
1005	BOULDER CANYON	PUBLIC SERVICE CO OF COLO	MON	20000		CO	BOULDER CR MIDDLE	04/28/1981	08/31/2009
* 1025	SAFE HARBOR	SAFE HARBOR WTR PWR CORP	MON	230000	187500	PA	SUSQUEHANNA	08/14/1980	04/22/2030
* 1051	SKAGWAY DEWEY	ALASKA POWER & TEL CO	NON	340		AK	DEWEY LAKES	04/30/1980	08/29/2007
* 1061	PHOENIX	PACIFIC GAS AND ELEC CO	YON	1800		CA	STANISLAUS S FK	12/26/1930	12/25/1980
* 1121	MILLSEAT CREEK & BATTLE CREEK	PACIFIC GAS AND ELEC CO	MON	12150		CA	BATTLE CR	08/13/1973	07/31/2026
*				7650			BATTLE CR S FK		
*				6750			BATTLE CR S FK		
*				9550			MILLSEAT CR		
* 1175	LONDON & MARMET	KANAWHA VALLEY POWER CO	MON	14400		WV	KANAWHA	09/26/1983	01/31/2014
*				14400			KANAWHA		
* 1212	LAKE HILL	EPHRAIM CITY OF	NOP	0		UT	MISC. MOUNTAIN SPRINGS	08/24/1933	08/23/1983
*				205			COTTONWOOD CR		
* 1218	FLINT RIVER RESERVOIR	GEORGIA POWER CO	MON	5400		GA	FLINT	12/27/1979	09/30/2001
* 1235	RADFORD	RADFORD CITY OF	NOP	800		VA	LITTLE CR	12/07/1933	12/06/1983
* 1250	AZUSA	PASADENA CITY OF	MOP	3000		CA	SAN GABRIEL	05/18/1934	05/30/1984
* 1256	COLUMBUS & MONROE	LOUP RIVER PUB PWR D	MOP	40500		NE	LOUP & CANAL FROM	12/29/1982	04/15/2014

			I&I					LOUP		
*					7200			LOUP & CANAL FROM LOUP		
*	1267	BUZZARD ROOST	DUKE POWER CO	MON	15000		SC	SALUDA	02/11/1935	02/10/1985
*	1273	PAROWAN	PAROWAN CITY CORPORATION	NOP	600		UT	CENTER CR	09/15/1977	12/30/2004
*	1290	WINFIELD	KANAWHA VALLEY POWER CO	MON	14760		WV	KANAWHA	09/26/1983	01/31/2014
*	1333	TULE RIVER	PACIFIC GAS AND ELEC CO	MON	4800		CA	TULE N FK & M FK	05/01/1939	04/30/1989
*	1354	CRANE VALLEY	PACIFIC GAS AND ELEC CO	MON	880		CA	WILLOW CR N FK	05/01/1939	04/30/1989
*					4000			WILLOW CR N FK		
*					2880			WILLOW CR N FK		
*					340			WILLOW CR N FK		
*					3220			WILLOW CR N FK		
*	1388	POOLE	SOUTHERN CALIFORNIA EDISON CO	MON	10000		CA	LEEVINING CR	08/25/1939	11/30/1986
*	1389	RUSH CREEK	SOUTHERN CALIFORNIA EDISON CO	MON	8400		CA	RUSH CR	05/01/1939	11/30/1986
*	1390	LUNDY	SOUTHERN CALIFORNIA EDISON CO	MON	3000		CA	MILL CR	10/02/1939	11/30/1986
*	1394	BISHOP CREEK	SOUTHERN CALIFORNIA EDISON CO	MON	0		CA	BISHOP CR	09/03/1940	11/30/1986
*					0			BISHOP CR		
*					0			BISHOP CR		
*					21875			BISHOP CR		
*	1403	NARROWS	PACIFIC GAS AND ELEC CO	MON	9350		CA	YUBA	08/01/1941	07/31/1991
*	1413	PONDS LODGE	ISLAND PARK RESORTS INC	NON	200		ID	BUFFALO	03/14/1980	10/31/2004
*	1417	CENTRAL NEBRASKA	CENTRAL NEB PUB PWR & I D	MOP	18000		NE	CANAL FROM PLATTE	07/30/1937	07/29/1987
*					18000			CANAL FROM PLATTE		
*					18000			PLATTE&CANAL FROM PLATTE		
*						50000		NORTH PLATTE		
*	1432	DRY SPRUCE	C W C FISHERIES	NON	75		AK	DRY SPRUCE BAY	05/20/1971	10/26/1988
*	1473	FLINT CREEK	MONTANA POWER CO THE	MON	1100		MT	FLINT CR	07/01/1938	06/30/1988
*	1490	MORRIS SHEPPARD	BRAZOS RIVER AUTHORITY	MOP	22500		TX	BRAZOS	05/25/1938	05/24/1988
*	1494	PENSACOLA	GRAND RIVER DAM AUTHORITY	MOP	86400		OK	GRAND NEOSHO	07/26/1939	12/31/1988
*	1510	KAUKAUNA	KAUKAUNA CITY OF	MOP	4800		WI	FOX	11/30/1938	03/31/1989
*	1517	UPPER MONROE	MONROE CITY CORP	NOP	125		UT	MONROE CR	07/01/1940	06/30/1990
*	1553	FALLS CREEK	NEW JERSEY ZINC CO	NON	330		CO	FALL CR	07/13/1977	06/27/2000
*	1574	MOUNTAIN SPRINGS	MANTI CITY LIGHT & POWER	MOP	400		UT	MANTI CR	09/03/1940	09/02/1990
*	1651	SWIFT CREEK	LOWER VALLEY PWR AND LT CO	MON	0	750	WY	SWIFT CR	12/01/1942	11/30/1992
*					0	800		SWIFT CR		
*	1715	SPRING CREEK	SPRINGVILLE CITY OF	YOP	100		UT	SPRING CREEK	06/23/1941	06/22/1991
*	1744	WEBER	UTAH POWER & LIGHT CO	MON	3465		UT	WEBER	05/14/1948	06/30/1970
*	1746	LEIDY CREEK	CORD VIRGINIA KIRK	NON	200		NV	LEIDY CR	05/16/1966	09/30/1991
*	1759	MICHIGAMME	WISCONSIN ELECTRIC PWR CO	MON	6140		MI	MENOMINEE	11/25/1974	12/31/2001
*					15000			MICHIGAMME		
*					1800			MICHIGAMME		
*	1773	YELLOWSTONE	MOON LAKE ELECTRIC A	MON	900		UT	YELLOWSTONE CR	04/01/1943	03/31/1993

		SSN							
* 1835	SUTHERLAND	NEBRASKA PUB PWR DIST	MOP	26100		NE	CANAL FROM N & S PLATTE	04/13/1943	06/30/1987
* 1855	BELLOWS FALLS	NEW ENGLAND POWER CO	MON	40800		NH	CONNECTICUT	08/03/1979	04/30/2018
* 1858	BEAVER CITY	BEAVER CITY CORPORATION	MOP	625		UT	BEAVER	07/31/1943	07/30/1993
* 1862	NISQUALLY RIVER	TACOMA CITY OF	MOP	64000		WA	NISQUALLY	01/01/1944	12/31/1993
*				50000			NISQUALLY		
* 1864	VICTORIA	UPPER PENINSULA POWER CO	MON	0		MI	ONTONAGON	10/05/1953	12/31/1988
*				12600			W. BRANCH ONTONAGON		
*							W. BRANCH ONTONAGON		
*							S. BRANCH ONTONAGON		
* 1869	THOMPSON FALLS	MONTANA POWER CO THE	MON	30000		MT	CLARK FK	12/28/1979	12/31/2015
* 1881	HOLTWOOD	PENN POWER & LIGHT CO	MON	107200		PA	SUSQUEHANNA	08/14/1980	09/01/2004
* 1888	YORKHAVEN,	METROPOLITAN EDISON CO	MON	19600		PA	SUSQUEHANNA	08/14/1980	09/01/2014
* 1889	TURNERS FALLS	WESTERN MASS ELECTRIC CO	MON	51000		MA	CONNECTICUT RIVER	05/05/1980	04/30/2018
*				4840			CONNECTICUT CAN		
* 1892	WILDER	NEW ENGLAND POWER CO	MON	32400		NH	CONNECTICUT	12/10/1979	04/30/2018
* 1893	MERRIMACK RIVER	PUBLIC SERVICE CO OF N H	MON	16000		NH	MERRIMACK	05/08/1980	12/31/2005
*				1600			MERRIMACK RIVER		
*				5600	5900		MERRIMACK RIVER		
* 1894	PARR SHOALS	SOUTH CAROLINA ELEC & GAS CO	MON	14880		SC	BROAD	08/28/1974	06/30/2020
*				518400			BROAD		
* 1895	COLUMBIA	SOUTH CAROLINA ELEC & GAS	MON	10600		SC	BROAD	04/28/1980	06/30/2000
* 1904	VERNON	NEW ENGLAND POWER CO	MON	24400		NH	CONNECTICUT	06/25/1979	04/30/2018
* 1922	BEAVER FALLS CREEK	KETCHIKAN CITY OF	MOP	2100		AK	SILVIS LAKE	04/05/1945	04/30/1995
*				4400			SILVIS LAKE		
*				1200			SILVIS LAKE		
* 1927	NORTH UMPQUA	PACIFIC POWER & LIGHT CO	MON	0		OR	NORTH UMPQUA	01/30/1949	01/29/1997
*				33000			NORTH UMPQUA		
*				15000			CLEARWATER		
*				26000			CLEARWATER		
*				42501			NORTH UMPQUA		
*				11000			NORTH UMPQUA		
*				18000			NORTH UMPQUA		
*				11250			NORTH UMPQUA		
* 1930	KERN RIVER NO 1	SOUTHERN CALIFORNIA EDISON CO	MON	24992		CA	KERN	05/01/1946	04/30/1996
* 1932	LYTLE CREEK	SOUTHERN CALIFORNIA EDISON CO	MON	400		CA	LYTLE CR	08/09/1946	04/30/1996
* 1933	SANTA ANA NO 1 & NO 2	SOUTHERN CALIFORNIA EDISON CO	MON	800		CA	SANTA ANA	01/03/1947	04/30/1996
*				3200			SANTA ANA		
* 1934	MILL CREEK NO 2 & NO	SOUTHERN CALIFORNIA EDISON CO	MON	1800		CA	MILL CR	08/09/1946	04/30/1996
*				200			MILL CR		
* 1940	TOMAHAWK	WISCONSIN PUB SERV CORP	MON	2600		WI	WISCONSIN	09/19/1948	12/31/1986
* 1951	SINCLAIR	GEORGIA POWER CO	MON	45000		GA	OCONEE	06/01/1948	08/31/1997

* 1952	EAGLE PASS	MAVERICK CO W C I D NO1	MOP	0		TX	RIO GRANDE	10/24/1958	06/30/1996
* 1953	DU BAY	CONSOLIDATED WATER PWR CO	MON	7200		WI	WISCONSIN	02/04/1952	06/30/1991
R * 1957	OTTER RAPIDS	WISCONSIN PUB SERV CORP	MON	700		WI	WISCONSIN	08/08/1975	06/30/199
* 1960	FLAMBEAU	DAIRYLAND POWER COOP	MON	15000		WI	FLAMBEAU	03/14/1951	02/28/200
* 1962	CRESTA & ROCK CREEK	PACIFIC GAS AND ELEC CO	MON	113400		CA	FEATHER N FK	10/01/1947	09/30/198
*				67500			FEATHER N FK		
* 1966	GRANDFATHER FALLS	WISCONSIN PUB SERV CORP	MON	17240		WI	WISCONSIN	02/26/1951	12/31/198
R * 1967	WHITING&PLOVER	KIMBERLY-CLARK CORP	MON	600		WI	WISCONSIN	10/23/1974	06/30/199
* 1971	HELLS CANYON	IDAHO POWER CO	MON	391500		OR	SNAKE	08/04/1955	07/31/200
*				190000			SNAKE		
*				585000			SNAKE		
* 1975	BLISS	IDAHO POWER CO	MON	69000		ID	SNAKE	03/01/1948	02/28/199
* 1979	ALEXANDER	WISCONSIN PUB SERV CORP	MON	4200		WI	WISCONSIN	01/05/1949	06/30/197
* 1980	BIG QUINNESEC FALLS	WISCONSIN ELECTRIC PWR CO	MON	22700		MI	MENOMINEE	11/04/1949	02/28/199
* 1981	STILES	OCONTO ELECTRIC COOP	MON	1000		WI	OCONTO	03/01/1950	02/28/200
* 1982	HOLCOMBE	NORTHERN STATES POWER CO	MON	34000		WI	CHIPPEWA	05/19/1950	06/30/199
* 1984	PETENWELL-CASTLE ROCK	WISCONSIN RIVER POWER CO	MON	15000		WI	WISCONSIN	12/15/1950	01/31/199
*				20000			WISCONSIN		
* 1986	ROCK CREEK	CALIF PACIFIC UTIL CO	MON	800		OR	ROCK CR	06/30/1946	06/29/199
* 1988	KINGS RIVER	PACIFIC GAS AND ELEC CO	MON	75000		CA	KINGS N FK	04/28/1955	03/31/198
*				150000			KINGS,N FK		
* 1991	MOYIE NO 1 & 2	BONNERS FERRY CITY OF	MOP	3650		ID	MOYIE	04/05/1950	03/31/199
* 1992	FIRE MOUNTAIN LODGE	TOWNSEND DONALD R	MON	15		CA	FERN SPRINGS	05/06/1980	04/30/201
* 1994	SNAKE CREEK	HEBER LIGHT AND PWR PLANT	MOP	750		UT	SNAKE CR	12/29/1949	06/30/199
R * 1999	WAUSAU	WISCONSIN PUB SERV CORP	MON	5400		WI	WISCONSIN	04/02/1975	06/30/199
* 2000	ROBERT MOSES	POWER AUTHORITY OF THE STATE OF NY	MOP	912000		NY	ST LAWRENCE	07/15/1953	10/31/200
* 2004	CONNECTICUT CANAL	HOLYOKE WATER POWER CO	MON	15000	15000	MA	CONNECTICUT	09/29/1949	08/31/199
*				7640			CONNECTICUT CAN		
*				500			CONNECTICUT CAN		
*				2900			CONNECTICUT CAN		
*				225			CONNECTICUT CAN		
*				1600			CONNECTICUT CANAL		
* 2005	DONNELLS & BEARDSLEY	OAKDALE & SOUTH SAN JOAQUIN I D S	MOP	54000		CA	STANISLAUS M FK	05/03/1950	12/31/200
*				9990			STANISLAUS M FK		
* 2009	GASTON & ROANOKE RAPIDS	VIRGINIA ELECTRIC & POWER CO	MON	100000		NC	ROANOKE	02/01/1951	01/31/2001
*				177920			ROANOKE		
* 2016	MAYFIELD & MOSSYROCK	TACOMA CITY OF	MOP	161590	40000	WA	COWLITZ	11/27/1951	12/31/2001
*				308000			COWLITZ		
* 2017	BIG CREEK NO 4	SOUTHERN CALIFORNIA EDISON CO	MON	84000		CA	SAN JOAQUIN	03/01/1949	02/28/1999
* 2019	MURPHYS	PACIFIC GAS AND ELEC CO	MON	3600		CA	STANSL> N FK DIV	11/06/1946	11/05/1996

*	2030	ROUND BUTTE & PELTON	PORTLAND GENERAL ELEC CO	MON	247050		OR	DESCHUTES	01/01/1952	12/31/20
*					15000			DESCHUTES RIVER		
*					123000			DESCHUTES		
*	2051	BARTHOLOMEW SPRINGS	SPRINGVILLE CITY OF	YOP	500		UT	BARTHOLOMEW CR	10/01/1952	09/30/20
*	2052	STRAWBERRY CREEK	LOWER VALLEY PWR AND LT CO	MON	1500		WY	STRAWBERRY CR	05/11/1951	09/30/1
*	2035	GROSS DAM	DENVER CITY & COUNTY OF	MOP	0		CO	BOULDER CR SOUTH	05/01/1950	04/30/2
*	2042	BOX CANYON	PEND OREILLE PUD NO 1	MOP	60000		WA	PEND OREILLE	02/05/1952	01/31/2
*	2047	STEWARTS BRIDGE	NIAGARA MOHAWK POWER CORP	MON	30000		NY	SACANDAGA	07/03/1950	08/31/2
*	2055	C J STRIKE	IDAHO POWER CO	MON	82500		ID	SNAKE	02/06/1951	11/30/2
*	2056	ST ANTHONY FALLS	NORTHERN STATES POWER CO	MON	12400		MN	MISSISSIPPI	09/06/1951	12/31/2
*					8000			MISSISSIPPI		
*	2058	CABINET GORGE	WASHINGTON WATER PWR CO	MON	200000		ID	CLARK FORK	01/10/1951	01/09/2
*	2060	CARRY FALLS RES	NIAGARA MOHAWK POWER CORP	MON	[illegible]		NY	RAQUETTE	02/12/1951	01/31/2
*	2061	LOWER SALMON	IDAHO POWER CO	MON	60000		ID	SNAKE	10/23/1951	12/23/1
*	2062	ENLOE	OKANAGAN COUNTY P U D	MOP		3720	WA	SIMILKAMEEN RIVER	03/03/1983	02/28/2
*	2064	WINTER	NORTH CENTRAL POWER CO	MON	625		WI	CHIPPEWA E FK	11/19/1951	11/30/2
*	2067	TULLOCH	OAKDALE & SOUTH SAN JOAQUIN I D S	MOP	17100		CA	STANISLAUS	08/21/1951	12/31/2
*	2069	IRVING & CHILDS	LINCOLN NATL LIFE INS CO	MON	5400		AZ	FOSSIL CR	01/01/1945	12/31/1
*					1600			FOSSIL CR		
*	2071	YALE	PACIFIC POWER & LIGHT CO	MON	108000		WA	LEWIS	04/25/1951	04/30/2
*	2072	LOWER PAINT	WISCONSIN ELECTRIC PWR CO	MON	100		MI	PAINT	12/29/1951	12/31/2
*	2073	MICHIGAMME FALLS	WISCONSIN ELECTRIC PWR CO	MON	9600		MI	MICHIGAMME	10/05/1951	10/31/2
*	2074	HEMLOCK FALLS	WISCONSIN ELECTRIC PWR CO	MON	2800		MI	MICHIGAMME	10/16/1951	10/31/2
*	2075	NOXON RAPIDS	WASHINGTON WATER PWR CO	MON	396880		MT	CLARK FK	05/12/1955	04/30/2
*	2077	FIFTEEN MILES FALLS	NEW ENGLAND POWER CO	MON	10560		NH	CONNECTICUT	01/25/1952	07/31/2
*					140400			CONNECTICUT		
*					140400			CONNECTICUT		
*	2079	MIDDLE FORK AMERICAN RIVER	PLACER CO WATER AGENCY	MOP	110625		CA	RUBICON	03/01/1963	02/28/20
*					15300			AMERICAN M FK		
*					79200			AMERICAN M FK		
*					6570			AMERICAN M FK		
*	2082	KLAMATH	PACIFIC POWER & LIGHT CO	MON	3200		OR	LINK	01/28/1954	02/28/20
*					600			LINK		
*					0			KLAMATH		
*					80000			KLAMATH		
*					20000			KLAMATH		
*					27000			KLAMATH		
*					2200			FALL CR		
*					18000			KLAMATH		
*	2084	RAQUETTE	NIAGARA MOHAWK POWER CO	MON	22500		NY	RAQUETTE	02/05/1952	01/31/20

*					14400			RAQUETTE		
*					22500			RAQUETTE		
*					22500			RAQUETTE		
*					19350			RAQUETTE		
*	2085	MAMMOTH POOL	SOUTHERN CALIFORNIA EDISON CO	MON	129360		CA	SAN JOAQUIN	12/30/1957	11/30/2007
*								SAN JOAQUIN RIVER		
*	2086	LAKE THOMAS A. EDISON	SOUTHERN CALIFORNIA EDISON CO	MON	0		CA	MONO CR	09/29/1953	08/31/2003
*	2088	SOUTH FORK	OROVILLE WYANDOTTE I D S	MOP	52200		CA	FEATHER S FK	07/17/1952	03/31/2009
*					9900			FEATHER S FK		
*					25800			FEATHER S FK		
*						13200		S FK FEATHER		
*										
*	2090	WATERBURY NO 22	GREEN MOUNTAIN POWER CORP	MON	5520		VT	WATERBURY	07/20/1954	08/31/2001
*	2100	FEATHER RIVER	CALIFORNIA DEPT OF WATER RESOURCES	MOP	115100	13000	CA	FEATHER	02/11/1957	01/31/2007
*					644250	500		FEATHER		
*								FEATHER RIVER		
*						3000		FEATHER RIVER		
*	2101	UPPER AMERICAN RIVER	SACRAMENTO M U D	MOP	190400		CA	SILVER CREEK	08/01/1957	07/31/2007
*						10000		SOUTH FORK SILVER CREEK		
*					142500			SILVER CR		
*					133000			SILVER CR		
*					33250			SILVER CR		
*					23750			AMERICAN S FK		
*					74100			GERLE CR		
*	2103	WANETA	COMINCO AMERICAN CO	YON	0		WA	CEDAR CREEK	08/05/1952	07/31/2002
*	2105	UPPER NO. FORK FEATHER RIVER	PACIFIC GAS AND ELEC CO	MON		1300	CA	NORTH FORK FEATHER RIVER	11/01/1954	10/31/2004
*					36000			BUTT CREEK		
*					109800			FEATHER N FK		
*					75000			FEATHER N FK		
*					117900			NORTH FORK FEATHER RIVER		
*	2106	MCCLOUD-PIT	PACIFIC GAS AND ELEC CO	MON	104400		CA	PIT	08/18/1961	07/31/2011
*					79200			PIT		
*					154800			MCCLOUD & IRON CANYON CR		
*	2107	POE	PACIFIC GAS AND ELEC CO	MON	142830		CA	FEATHER N FK	10/26/1953	09/30/2003
*	2110	STEVENS POINT	CONSOLIDATED WATER PWR CO	MON	3840		WI	WISCONSIN	01/17/1977	06/30/2000
*	2111	SWIFT NO 1	PACIFIC POWER & LIGHT CO	MON	204000		WA	LEWIS	05/01/1956	04/30/2006
*	2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0		WI	WISCONSIN	05/28/1959	07/31/1993
*					0			NORTH PELICAN		
*					0			PELICAN		
*					0			TOMAHAWK		
*					0			SQUIRREL		
*					0			TOMAHAWK		
*					0			TOMAHAWK		
*					0			SPIRIT		
*					0			ST GERMAIN		
*					0			BIG EAU PLEINE R		

				0			ST GERMAIN		
				0			WISCONSIN		
				0			LITTLE ST GERMAIN CR		
				0			TWIN		
				0			BUCKATAPHON CR		
				0			DEERSKIN		
				0			LITTLE DEERSKIN CR		
				0			SEVEN MILE CR		
				0			NINE MILE CR		
				0			EAGLE		
				0			SUGAR CAMP CR		
114	PRIEST RAPIDS	GRANT COUNTY PUD NO 2	MOP	788500		WA	COLUMBIA	11/04/1955	10/31/2005
				831250			COLUMBIA		
130	STANISLAUS-SPRING GAP	PACIFIC GAS AND ELEC CO	MON	6000		CA	STANISLAUS S FK	01/01/1955	12/31/2004
				81900			STANISLAUS M FK		
131	KINGSFORD	WISCONSIN ELECTRIC PWR CO	MON	7200		MI	MENOMINEE	01/25/1979	06/30/2004
142	INDIAN POND-HARRIS STATION	CENTRAL MAINE POWER CO	MON	76460		ME	KENNEBEC	05/21/1952	12/31/2001
144	BOUNDARY	SEATTLE DEPT OF LIGHTING	MOP	551000	392000	WA	PEND OREILLE	07/10/1967	09/30/2011
145	ROCKY REACH	CHELAN COUNTY PUD NO 1	MOP	1213150		WA	COLUMBIA	07/11/1957	06/30/2006
146	COOSA RIVER	ALABAMA POWER CO	MON	87750		AL	COOSA	09/04/1957	07/31/2007
				72900			COOSA		
				128250			COOSA		
				177000			COOSA		
				225000			COOSA		
149	WELLS	DOUGLAS COUNTY PUD NO 1	MOP	774250		WA	COLUMBIA	07/12/1962	05/31/2012
150	BAKER	PUGET SOUND POWER & LIGHT CO	MON	94400		WA	BAKER	05/01/1956	04/30/2006
				64000			BAKER		
153	SANTA FELICIA RES	UNITED WTR CONSERVTN DIST	MOP	0		CA	PIRU SESPE	05/01/1954	04/30/2004
155	CHILI BAR	PACIFIC GAS AND ELEC CO	MON	7020		CA	AMERICAN S FK	08/28/1962	07/31/2007
157	UPPER SULTAN	SNOHOMISH CNTY PUD NO 1	MOP		111800	WA	SULTAN	06/01/1961	05/31/2011
161	RHINELANDER	RHINELANDER PAPER CO	MON	2000		WI	WISCONSIN	01/23/1981	06/30/2000
165	BANKHEAD, JOHN H.	ALABAMA POWER CO	MON	45125		AL	BLACK WARRIOR	09/12/1957	08/31/2007
				157500			SIPSEY FK		
169	LITTLE TENNESSEE	TAPOCO INC	MON	50000		TN	LITTLE TENNESSEE	03/17/1955	02/28/2005
				121500			LITTLE TENNESSEE		
				45000			CHEOAH		
				110000			LITTLE TENNESSEE		
170	COOPER LAKE	CHUGACH ELEC ASSN INC	MON	15000		AK	COOPER CR	05/01/1957	04/30/2007
174	PORTAL	SOUTHERN CALIFORNIA EDISON CO	MON	10000		CA	BIG CREEK	04/19/1955	03/31/2005
175	BIG CREEK NO 1 & 2	SOUTHERN CALIFORNIA EDISON CO	MON	57750		CA	BIG CREEK	03/29/1959	02/28/2009
				66900			BIG CREEK		
177	CHATTAHOOCHEE	GEORGIA POWER CO	MON	29600		GA	CHATTAHOOCHEE	03/05/1959	12/31/2004
				60000			CHATTAHOOCHEE		
				26000			CHATTAHOOCHEE		

*	2179	MCSWAIN & NEW EXCHEQUER	MERCED IRRIG DIST	MOP	0	CA	MERCED	04/18/1964	02/28/2
*					80000		MERCED		
R *	2180	GRANDMOTHER	OWENS-ILLINOIS INC	MON	3000	WI	WISCONSIN	09/16/1977	06/30/20
*	2181	MENOMONIE	NORTHERN STATES POWER CO	MON	5400	WI	RED CEDAR	04/17/1956	03/31/20
*	2183	MARKHAM FERRY	GRAND RIVER DAM AUTHORITY	MOP	100000	OK	GRAND	06/01/1955	05/31/20
*	2187	GEORGETOWN	PUBLIC SERVICE CO OF COLO	MON	1440	CO	CLEAR CREEK S FK	08/27/1964	12/31/19
*	2188	MISSOURI-MADISON	MONTANA POWER CO THE	MON	0	MT	MADISON	04/23/1956	11/30/19
*					9000		MADISON		
*					17000		MISSOURI		
*					38400		MISSOURI		
*					16800		MISSOURI		
*					35600		MISSOURI		
*					48000		MISSOURI		
*					48000		MISSOURI		
*					45000		MISSOURI		
R *	2192	BIRON NO. 2	CONSOLIDATED WATER PWR CO	MON	3300	WI	WISCONSIN	08/14/1980	06/30/20
*	2194	BAR MILLS	CENTRAL MAINE POWER CO	MON	4000	ME	SACO	05/11/1956	06/30/20
*	2195	NORTH FORK	PORTLAND GENERAL ELEC CO	MON	19050	OR	CLACKAMAS	09/01/1956	08/31/20
*					34450		CLACKAMAS		
*					38400		CLACKAMAS		
*	2197	YADKIN FALLS	YADKIN INC	MON	33000	NC	YADKIN	05/01/1958	04/30/20
*					42000		YADKIN		
*					96500		YADKIN		
*					29500		YADKIN		
*	2198	SANTA ANA NO 3	SOUTHERN CALIFORNIA EDISON CO	MON	1500	CA	SANTA ANA	05/01/1959	04/30/20
*	2203	HOLT LOCK AND DAM	ALABAMA POWER CO	MON	40000	AL	BLACK WARRIOR	10/07/1965	08/31/20
*	2204	WILLIAMS FORK	DENVER CITY & COUNTY OF	MOP	3000	CO	WILLIAMS FORK	01/31/1963	12/31/20
*	2205	LAMOILLE RIVER	CENTRAL VERMONT PUBLIC SERVICE CORP	MON	5000	VT	LAMOILLE	05/07/1958	12/31/19
*					6000		LAMOILLE		
*					3000		LAMOILLE		
*					2880		LAMOILLE		
*	2206	BLEWETT FALLS LAKE & TILLERY	CAROLINA POWER AND LT CO	MON	24600	NC	YADKIN	05/19/1958	04/30/200
*					84000		YADKIN		
R *	2207	MOSINEE	MOSINEE PAPER MILLS CO	MON	3050	WI	WISCONSIN	01/05/1982	12/31/200
*	2210	LEESVILLE & SMITH MT LAKES	APPALACHIAN POWER CO	MON	47500	VA	ROANOKE	04/25/1960	03/31/201
*					640000		ROANOKE		
*	2211	MARKLAND	PUBLIC SERVICE CO OF IND	MON	81000	IN	OHIO	05/31/1961	04/30/201
*	2212	ROTHSCHILD	WEYERHAEUSER CO	MON	3640	WI	WISCONSIN	04/20/1959	07/31/199
*	2213	SWIFT NO 2	COWLITZ COUNTY PUD NO 1	MOP	70000	WA	LEWIS	11/29/1956	04/30/2006
*	2216	NIAGARA-LEWISTON	POWER AUTHORITY OF THE STATE OF NY	MOP	1950000	NY	NIAGARA	01/29/1958	08/31/2007
*					240000		NIAGARA		
*	2219	BOULDER CREEK	GARKANE POWER ASSN INC	MON	4200	UT	BOULDER CR	05/27/1957	04/30/2007
R *	2221	OZARK BEACH	EMPIRE DISTRICT ELEC	MON	16000	MO	WHITE	08/24/1970	08/31/1993

		CO							
2229	SULLIVAN LAKE	PEND OREILLE PUD NO 1	MOP	0		WA	SULLIVAN CREEK	11/25/1958	09/30/2008
2230	BLUE LAKE	SITKA CITY & BOROUGH OF	MOP	6000		AK	MEDVETCHA	04/01/1958	03/31/2008
2232	CATAWBA	DUKE POWER CO	MON	20000		SC	CATAWBA	09/01/1958	08/31/2008
				25500			CATAWBA		
				36000			CATAWBA		
				18720					
				350000			CATAWBA		
				60000			CATAWBA		
				60000			CATAWBA		
				36720			CATAWBA		
				69000			CATAWBA		
				73000			CATAWBA		
				56000			WATEREE		
2233	WILLAMETTE	CROWN ZELLERBACH CORP	MON	15660		OR	WILLAMETTE	06/21/1960	12/31/2004
				15400			WILLAMETTE		
				10300			WILLAMETTE		
2237	MORGAN FALLS	GEORGIA POWER CO	MON	16800		GA	CHATTAHOOCHEE	03/27/1959	02/28/2009
2239	KINGS DAM	TOMAHAWK POWER & PULP CO	MON	290		WI	WISCONSIN	07/01/1959	07/31/1993
2242	TRAIL BRIDGE & CARMEN	EUGENE CITY OF	MOP	80000		OR	MCKENZIE	12/01/1958	11/30/2008
				10000			MCKENZIE SMITH		
2244	PACKWOOD LAKE	WASHINGTON PUB PWR SU SYS	MOP	26125		WA	LAKE CR	03/01/1960	02/28/2010
2245	CANNELTON	VANCEBURG CITY OF	MOP		70560	KY	OHIO	03/29/1976	02/28/2026
2246	YUBA RIVER	YUBA COUNTY WATER AGENCY	MOP	46700		CA	YUBA	05/01/1966	04/30/2013
				284400			YUBA N FORK		
2251	SAN JUAN	NEW ENGLAND FISH CO	MON	100		AK	SAN JUAN LAKE	10/08/1957	10/07/1977
2255	CENTRALIA	NEKOOSA PAPERS INC	MON	3200		WI	WISCONSIN	09/01/1959	07/31/1993
2256	WISCONSIN RAPIDS	CONSOLIDATED WATER PWR CO	MON	4680		WI	WISCONSIN	10/05/1959	07/31/1993
2266	YUBA-BEAR	NEVADA IRRIGATION DISTRICT	MOP	37350		CA	BEAR R	05/01/1963	04/30/2013
				22800			BEAR R		
					3000		CANYON CREEK		
				11000			BEAR R		
					3500		MIDDLE YUBA		
2267	PULP MILL	ALASKA LUMBER PULP CO INC	MON	0	900	AK	MEDVETCHA	06/21/1960	03/31/2010
2275	SALIDA HYDRO NO 1 & NO 2	PUBLIC SERVICE CO OF COLO	MON	560		CO	ARKANSAS, S. FORK	03/05/1965	12/31/1993
				750			ARKANSAS, S. FORK		
2277	TAUM SAUK	UNION ELECTRIC CO	MON	350000		MO	BLACK E FK	08/26/1965	06/30/2010
2280	KINZUA P S	PENN ELEC CO-CLEV EL ILLM	MON	355000		PA	ALLEGHENY	12/28/1965	11/30/2015
2283	DEER RIPS-ANDROSCOGGIN-GULF ISLAND	CENTRAL MAINE POWER CO	MON	19200		ME	ANDROSCOGGIN	07/05/1962	12/31/1993
				3600			ANDROSCOGGIN		
				6540			ANDROSCOGGIN		
2284	TOPSHAM (BRUNSWICK)	CENTRAL MAINE POWER CO	MON	19000		ME	ANDROSCOGGIN	02/02/1979	02/28/2029
2287	J BRODIE SMITH	PUBLIC SERVICE CO OF N H	MON	15000		NH	ANDROSCOGGIN	04/25/1962	12/31/1993
2288	GORHAM	PUBLIC SERVICE CO OF N H	MON	2150		NH	ANDROSCOGGIN	04/25/1967	12/31/1993

* 2290	KERN RIVER NO 3	SOUTHERN CALIFORNIA EDISON CO	MON	32000		CA	KERN	09/20/1955	12/31/1993
* 2291	PORT EDWARDS	NEKOOSA PAPERS INC	MON	3593		WI	WISCONSIN	07/19/1967	07/31/1993
* 2292	NEKOOSA	NEKOOSA PAPERS INC	MON	3800		WI	WISCONSIN	07/30/1962	07/31/1993
* 2299	NEW DON PEDRO	TURLOCK MODESTO IRRIG DIS	MOP	130400		CA	TUOLUMNE	03/10/1964	04/30/2016
* 2300	SHELBURNE	JAMES RIVER-NEW HAMPSHIRE ELEC INC	MON	3720		NH	ANDROSCOGGIN	07/19/1962	12/31/1993
R * 2301	MYSTIC LAKE	MONTANA POWER CO THE	MON	10000		MT	WEST ROSEBUD CR	10/05/1976	12/31/2009
* 2302	LEWISTON FALLS	UNION WATER POWER CO THE	MON	30	25000	ME	ANDROSCOGGIN	12/02/1963	12/31/1993
* 2304	BLUE RIDGE	PHELPS DODGE CORP	MON	2800		AZ	EAST CLEAR CR	03/20/1963	12/31/2012
* 2305	TOLEDO BEND	SABINE RIVER AUTH LA & TEX	MOP	85000		TX	SABINE	10/14/1963	09/30/2013
* 2306	CLYDE	CITIZENS UTILITIES CO	MON	0		VT	CLYDE	11/30/1962	12/31/1993
*				0			CLYDE		
*				0			CLYDE		
*				3600			CLYDE		
*				1600			CLYDE		
* 2307	SALMON CREEK & ANNEX CREEK	ALASKA ELEC LIGHT&POW CO	MON	5600	6700	AK	SALMON CR UPPER	10/24/1963	08/31/1988
*				3500			ANNEX CR		
* 2309	YARDS CREEK	JERSEY CENTRAL PWR AND LT	MON	338625		NJ	DELAWARE	03/14/1963	02/28/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON			CA	WISE CANAL	05/01/1963	04/30/2013
*							BEAR RIVER CANAL		
*							LAKE VALLEY CANAL		
*					10800		SOUTH CANAL		
*				2000			LITTLE BEAR		
*				5500			YUBA S & DEER CR		
*				12000			AMERICAN N F		
*				12000			AMERICAN N F		
*				22000			BEAR		
*				93300			YUBA S,BEAR,AMERICAN N F		
*				10750			YUBA S		
*				6300			YUBA S		
* 2311	GORHAM	JAMES RIVER-NEW HAMPSHIRE ELEC INC	MON	4800		NH	ANDROSCOGGIN	12/04/1979	12/31/1993
* 2312	GREAT WORKS	DIAMOND INTER CORP	MON	4580	3150	ME	PENOBSCOT	12/09/1963	03/31/2002
* 2315	NEAL SHOALS	SOUTH CAROLINA ELEC & GAS CO	MON	5200		SC	BROAD	11/21/1963	12/31/1993
* 2318	E J WEST	NIAGARA MOHAWK POWER CORP	MON	20000		NY	SACANDAGA	06/25/1963	12/31/1993
* 2320	RAQUETTE	NIAGARA MOHAWK POWER CORP	MON	4800		NY	RAQUETTE	06/12/1964	12/31/1993
*				7200			RAQUETTE		
*				29520			RAQUETTE		
*				4480			RAQUETTE		
R * 2322	SHAWMUT	CENTRAL MAINE POWER CO	MON	4650	4090	ME	KENNEBEC	01/05/1981	01/31/2021
* 2323	DEERFIELD RIVER	NEW ENGLAND POWER CO	MON	0		MA	DEERFIELD E BR	10/29/1963	12/31/1993
*				4000			DEERFIELD		
*				33600			DEERFIELD		
*				7200			DEERFIELD		
*				4800			DEERFIELD		
*				4800			DEERFIELD		
*				4800			DEERFIELD		

				15000		DEERFIELD		
2325	WESTON	CENTRAL MAINE POWER CO	MON	12000	ME	KENNEBEC	10/15/1964	12/31/1993
2326	CROSS	JAMES RIVER-NEW HAMPSHIRE ELEC INC	MON	3220	NH	ANDROSCOGGIN	07/06/1964	12/31/1993
2327	CASCADE	JAMES RIVER-NEW HAMPSHIRE ELEC INC	MON	7200	NH	ANDROSCOGGIN	07/07/1964	12/31/1993
2329	WYMAN	CENTRAL MAINE POWER CO	MON	72000	ME	KENNEBEC	10/15/1964	12/31/1993
2330	RAYMONDVILLE-NORFOLK -NORWOOD	NIAGARA MOHAWK POWER CORP	MON	2000	NY	RAQUETTE	07/16/1964	12/31/1993
				3000		RAQUETTE		
				4500		RAQUETTE		
				2000		RAQUETTE		
2331	NINETY NINE ISLANDS	DUKE POWER CO	MON	18000	SC	BROAD	07/15/1964	12/31/1993
2332	GASTON SHOALS	DUKE POWER CO	MON	9140	SC	BROAD	07/24/1964	12/31/1993
2333	RUMFORD FALLS	RUMFORD FALLS POWER CO	MON	12800	ME	ANDROSCOGGIN	05/14/1965	12/31/1993
				21970		ANDROSCOGGIN		
2334	GARDNER FALLS	WESTERN MASS ELECTRIC CO	MON	3580	MA	DEERFIELD	07/15/1964	12/31/1993
2335	WILLIAMS	CENTRAL MAINE POWER CO	MON	13000	ME	KENNEBEC	07/24/1964	12/31/1987
2336	LLOYD SHOALS	GEORGIA POWER CO	MON	14400	GA	OCMULGEE	01/05/1968	12/31/1993
2337	PROSPECT NO 3	PACIFIC POWER & LIGHT CO	MON	7200	OR	ROGUE S FK	07/08/1964	12/31/1988
2341	LANGDALE	GEORGIA POWER CO	MON	1040	GA	CHATTAHOOCHEE	10/15/1964	12/31/1993
2342	CONDIT	PACIFIC POWER & LIGHT CO	MON	9600	WA	WHITE SALMON	12/20/1968	12/31/1993
2343	MILLVILLE	POTOMAC EDISON CO	MON	2840	WV	SHENANDOAH	08/11/1964	12/31/1987
2347	JANESVILLE	WISCONSIN POWER AND LT CO	MON	500	WI	ROCK	10/07/1964	12/31/1993
2348	BELOIT	WISCONSIN POWER AND LT CO	MON	380	WI	ROCK	10/07/1964	12/31/1993
2350	RIVERVIEW	GEORGIA POWER CO	MON	480	GA	CHATTAHOOCHEE	03/02/1965	12/31/1993
2351	CABIN CREEK	PUBLIC SERVICE CO OF COLO	MON	300009	CO	CLEAR CREEK SO	03/23/1964	02/28/2014
2352	MENASHA	WHITING GEORGE A PAPER CO	MON	250	WI	FOX	03/02/1965	10/31/1988
2354	TUGALO & TALLULAH	GEORGIA POWER CO	MON	6120	GA	TALLULAH	05/07/1964	12/31/1993
				4800		TALLULAH		
				16000		TALLULAH		
				72006		TALLULAH		
				45000		TUGALO		
				22500		TUGALO		
2355	MUDDY RUN P S	PHILA ELECT PWR CO ETAL	MON	800000	PA	SUSQUEHANNA	11/09/1964	08/31/2014
2357	WHITE RAPIDS	WISCONSIN ELECTRIC PWR CO	MON	8000	MI	MENOMINEE	03/10/1965	12/31/1993
2360	ST LOUIS	MINNESOTA POWER & LIGHT CO	MON	0	MN	SKUNK & WHITEFACE	12/31/1964	12/31/1993
				0		OTTER		
				0		CLOQUET		
				0		BEAVER		
				0		BEAVER		
				0		ST LOUIS		
				0		ST LOUIS		
				0		ST LOUIS		
				83350		ST LOUIS		
2361	PRAIRE RIVER	MINNESOTA POWER & LI	MON	1084	MN	PRAIRIE	03/02/1965	12/31/1993

			GHT CO							
*	2362	GRAND RAPIDS	BLANDIN PAPER COMPANY	MON	2100		MN	MISSISSIPPI	11/12/1965	12/31/1993
*	2363	CLOQUET	POTLATCH CORPORATION	MON	6514		MN	ST LOUIS	12/11/1964	12/31/199
*	2364	ABENAKI	MADISON PAPER INDUSTRIES	MON	3650		ME	KENNEBEC	08/03/1964	04/30/2004
*	2365	ANSON	MADISON PAPER INDUSTRIES	MON	6000		ME	KENNEBEC	08/11/1964	12/31/199
*	2366	MILLINOCKET LAKE	MAINE PUBLIC SERVICE CO	NON	0		ME	MILLINOCKET	01/04/1965	06/30/199
*	2367	CARIBOU	MAINE PUBLIC SERVICE CO	NON	800		ME	AROOSTOOK	01/04/1965	12/31/199
*	2368	SQUA PAN	MAINE PUBLIC SERVICE CO	NON	1500		ME	SQUA PAN STREAM	01/04/1965	12/31/199
*	2370	DEEP CREEK	PENN ELEC CO	MON	19200		MD	DEEP CREEK	07/13/1968	12/31/199
*	2372	WARRIOR RIDGE	PENN ELEC CO	MON			PA	JUNIATA	06/03/1968	12/31/199
*	2373	ROCKTON	SOUTH BELOIT W G & E CO	NON	1200		IL	ROCK	10/07/1964	12/31/199
*	2374	WATERVLIET	WATERVLIET PAPER CO	NON	300		MI	PAW PAW	03/03/1965	12/31/199
*	2375	ANDROSCOGGIN	INTERNATIONAL PAPER CO	MON	0	7800	ME	ANDROSCOGGIN	02/18/1965	09/30/199
*					2500	625		ANDROSCOGGIN		
*					800^{LA}	10000		ANDROSCOGGIN		
*					6300^{LA}	12500		ANDROSCOGGIN		
*	2376	REUSENS	APPALACHIAN POWER CO	MON	12500		VA	JAMES	08/12/1964	12/31/199
*	2381	ASHTON & ST ANTHONY	UTAH POWER & LIGHT CO	MON	5800		ID	HENRYS FORK OF SNAKE RI	12/19/1977	12/31/198
*					500			HENRYS FORK OF SNAKE RI		
*	2385	GLEN FALLS	FINCH PRUYN AND CO	MON	9840		NY	HUDSON	02/25/1965	12/31/199
*	2386	HOLYOKE NO 1	HOLYOKE GAS AND EL DEPT	NON	1056		MA	CONNECTICUT CAN	03/23/1965	02/28/199
*	2387	HOLYOKE NO 2	HOLYOKE GAS AND EL DEPT	NON	800		MA	CONNECTICUT CAN	03/23/1965	03/31/198
*	2388	HOLYOKE NO 3	HOLYOKE GAS AND EL DEPT	NON	450		MA	CONNECTICUT CAN	03/23/1965	05/31/199
*	2389	EDWARDS	AUGUSTA DEV CORP	MON	3500		ME	KENNEBEC	08/12/1964	12/31/199
*	2390	BIG FALLS	LAKE SUPERIOR DIST PWR CO	MON	7780		WI	FLAMBEAU	05/25/1965	12/31/199
*	2391	WARREN	POTOMAC EDISON CO	NON	750		VA	SHENANDOAH	03/02/1965	12/31/199
*	2392	GILMAN	GEORGIA PACIFIC CORP	MON	3390		VT	CONNECTICUT	05/13/1965	12/31/199
*	2394	CHALK HILL	WISCONSIN ELECTRIC PWR CO	MON	7800		MI	MENOMINEE	11/15/1965	06/30/199
*	2395	PIXLEY	FLAMBEAU PAPER CORP	NON	960		WI	N FK FLAMBEAU	11/16/1969	12/31/199
*	2396	PIERCE MILLS	CENTRAL VERMONT PUBLIC SERVICE CORP	NON	250		VT	PASSUMPSIC	06/11/1969	12/31/199
*	2397	GAGE	CENTRAL VERMONT PUBLIC SERVICE CORP	NON	700		VT	PASSUMPSIC	06/11/1969	12/31/199
*	2399	ARNOLD FALLS	CENTRAL VERMONT PUBLIC SERVICE CORP	NON	350		VT	PASSUMPSIC	06/11/1969	12/31/199
*	2400	PASSUMPSIC	CENTRAL VERMONT PUBLIC SERVICE CORP	NON	700		VT	PASSUMPSIC	02/11/1970	12/31/199
*	2401	GRACE & COVE	UTAH POWER & LIGHT CO	MON	33000		ID	BEAR	10/06/1976	10/01/200
*					7500			BEAR		
*	2402	PRICKETT	UPPER PENINSULA POWER CO	MON	1960		MI	STURGEON	01/25/1963	12/31/199
*	2403	VEAZIE	BANGOR HYDRO-ELECTRIC CO	MON	8400		ME	PENOBSCOT	02/18/1965	12/31/198
*	2404	THUNDER BAY RIVER	ALPENA POWER CO	MON	1050		MI	THUNDER BAY	02/13/1968	12/31/199

*				1800			THUNDER BAY		
*				0			UPPER THUNDER BAY R		
*				0			THUNDER BAY LOWER SO BR		
*				-4000			THUNDER BAY		
* 2406	SALUDA	DUKE POWER CO	MON	2400		SC	SALUDA	09/13/1968	12/31/1993
* 2407	YATES	ALABAMA POWER CO	MON	32000		AL	TALLAPOOSA	01/14/1965	12/31/1993
* 2408	THURLOW DAM	ALABAMA POWER CO ET AL	MON	58000		AL	TALLAPOOSA	04/05/1965	12/31/1993
* 2409	NORTH FORK STANISLAUS	CALAVERAS COUNTY WTR DIST	MOP		5200	CA		02/08/1982	01/31/2032
*					200000		STANISLAUS N FK		
* 2411	SCHOOLFIELD	DAN RIVER INC	MON	4550		VA	DAN	10/16/1976	12/31/1993
* 2413	WALLACE	GEORGIA POWER CO	MON	324000		GA	OCONEE	06/01/1970	05/31/2020
* 2416	WARE SHOALS	RIEGEL TEXTILE CORP	MON	3000	3200	SC	SALUDA	10/06/1976	09/30/2001
* 2417	HAYWARD	LAKE SUPERIOR DIST PWR CO	MON	168		WI	NAMEKAGON	08/17/1967	12/31/1993
* 2419	HILLMAN	ALPENA POWER CO	MON	250		MI	THUNDER BAY	03/04/1965	12/31/1993
* 2420	CUTLER	UTAH POWER & LIGHT CO	MON	30000		UT	BEAR	12/23/1968	12/31/1993
* 2421	LOWER HYDRO ELECT	FLAMBEAU PAPER CORP	MON	1200		WI	FLAMBEAU N FK	04/19/1966	12/31/1993
* 2422	SAWMILL	JAMES RIVER-NEW HAMPSHIRE ELEC INC	MON	3174		NH	ANDROSCOGGIN	07/30/1965	12/31/1993
* 2423	RIVERSIDE	JAMES RIVER-NEW HAMPSHIRE ELEC INC	MON	7600		NH	ANDROSCOGGIN	08/20/1965	12/31/1993
* 2424	HYDRAULIC RACE	NIAGARA MOHAWK POWER CORP	MON	4687		NY	BARGE CANAL	12/09/1964	06/30/1991
* 2425	LURAY & NEWPORT	POTOMAC EDISON CO	MON	1600		VA	SHENANDOAH S FK	07/21/1965	12/31/1993
*				1400			SHENANDOAH S FK		
* 2426	CALIFORNIA AQUEDUCT	CALIFORNIA DEPT OF WATER RESOURCES	MOP	0		CA	CALIFORNIA AQUEDUCT	03/22/1978	01/31/2022
*					7200		MOJAVE SIPHON		
*				75000			CALIFORNIA AQUEDUCT		
*				0	15000		CALIFORNIA AQUEDUCT		
*				119700			CALIFORNIA AQUEDUCT		
*				1250000			CALIFORNIA AQUEDUCT		
* 2428	PIEDMONT	AQUENERGY SYSTEMS INC	MON	1000		SC	SALUDA	09/23/1970	12/31/1987
* 2431	BRULE	WISCONSIN ELECTRIC PWR CO	MON	5335		MI	BRULE	07/26/1967	12/31/1993
* 2433	GRAND RAPIDS	WISCONSIN PUB SERV CORP	MON	7020		MI	MENOMINEE	08/20/1965	12/31/1993
* 2436	FOOTE	CONSUMERS POWER CO	MON	9000		MI	AU SABLE	01/04/1966	12/31/1993
* 2438	WATERLOO & SENECA FALLS	NEW YORK ST EL AND G CORP	MON	8000		NY	SENECA	03/05/1965	12/31/1993
*				1920			SENECA CANAL		
* 2440	CHIPPEWA FALLS	NORTHERN STATES POWER CO	MON	21600		WI	CHIPPEWA	04/07/1965	12/31/1993
* 2441	SECOND STREET	NORWICH CITY OF	MOP	800		CT	SHETUCKET	04/15/1965	12/31/1993
* 2442	WATERTOWN	WATERTOWN MUN ELEC DEPT	MOP	5400		NY	BLACK	09/20/1967	12/31/1993
* 2444	WHITE RIVER	LAKE SUPERIOR DIST PWR CO	MON	1000		WI	WHITE	05/03/1966	12/31/1993
* 2445	CENTER RUTLAND	VERMONT MARBLE CO	MON	275		VT	OTTER CR	08/19/1965	12/31/1993
* 2446	DIXON	COMMONWEALTH EDISON	MON	3200		IL	ROCK	04/17/1975	12/31/1993

		CO							
* 2447	ALCONA	CONSUMERS POWER CO	MON	8000		MI	AU SABLE	05/14/1968	12/31/1993
* 2448	MIO	CONSUMERS POWER CO	MON	5000		MI	AU SABLE	05/14/1968	12/31/1993
* 2449	LOUD	CONSUMERS POWER CO	MON	4000		MI	AU SABLE	05/07/1965	12/31/1993
* 2450	COOKE	CONSUMERS POWER CO	MON	9000		MI	AU SABLE	05/14/1968	12/31/1993
* 2451	ROGERS	CONSUMERS POWER CO	MON	6000		MI	MUSKEGON	05/24/1968	12/31/1993
* 2452	HARDY	CONSUMERS POWER CO	MON	30000		MI	MUSKEGON	05/24/1968	12/31/1993
* 2453	FIVE CHANNELS	CONSUMERS POWER CO	MON	6000		MI	AU SABLE	01/09/1967	12/31/1993
* 2454	SYLVAN	MINNESOTA POWER & LIGHT CO	MON	1800		MN	CROW WING	06/28/1968	12/31/1993
* 2456	AYERS ISLAND	PUBLIC SERVICE CO OF N H	MON	8400		NH	PEMIGEWASSET	03/20/1967	12/31/1993
* 2457	EASTMAN FALLS	PUBLIC SERVICE CO OF N H	MON		4600	NH	PEMIGEWASSET	12/31/1969	12/31/1987
* 2458	PENOBSCOT	GREAT NORTHERN NEKOOSA CORP	MON	0		ME	PENOBSCOT W BR	10/14/1968	12/31/1993
				8200			PENOBSCOT W BR		
				8000			PENOBSCOT W BR		
				16980			PENOBSCOT W BR		
				7370			PENOBSCOT W BR		
* 2459	LAKE LYNN	WEST PENN POWER CO	MON	51200		WV	CHEAT	10/21/1970	12/31/1993
* 2464	WEED DAM	GRESHAM VILLAGE OF	NOP	630		WI	RED	07/13/1965	06/30/2015
2465	HOLIDAYS BRIDGE	DUKE POWER CO	MON	3500		SC	SALUDA	05/09/1967	12/31/1993
2466	NIAGARA	APPALACHIAN POWER CO	MON	2400		VA	ROANOKE	03/26/1968	12/31/1993
2467	MERCED FALLS	PACIFIC GAS AND ELEC CO	MON	3440		CA	MERCED	07/28/1969	02/28/2014
2468	CROTON	CONSUMERS POWER CO	MON	8849		MI	MUSKEGON	05/24/1968	12/31/1993
2471	STURGEON RIVER	WISCONSIN ELECTRIC PWR CO	NON	800		MI	STURGEON	11/16/1966	12/31/1993
2473	CROWLEY RAPIDS	FLAMBEAU PAPER CORP	NON	1500		WI	FLAMBEAU N FK	09/20/1969	12/31/1993
2474	OSWEGO RIVER	NIAGARA MOHAWK POWER CORP	MON	1250		NY	OSWEGO	05/27/1968	12/31/1993
				8000			OSWEGO		
				8800			OSWEGO		
2475	THORNAPPLE	LAKE SUPERIOR DIST PWR CO	NON	1400		WI	FLAMBEAU	04/22/1965	12/31/1993
2476	JERSEY	WISCONSIN PUB SERV CORP	NON	512		WI	TOMAHAWK	08/09/1966	12/31/1993
2482	HUDSON	NIAGARA MOHAWK POWER CORP	MON	44400		NY	HUDSON	07/30/1968	12/31/1993
				28800			HUDSON		
				3800			HUDSON		
				4800			HUDSON		
				2250			HUDSON		
2484	GRESHAM	GRESHAM VILLAGE OF	NOP	275		WI	RED	01/16/1974	12/31/1987
2485	NORTHFIELD MT	WESTERN MASS ELECTRIC CO	MON	1000000		MA	CONNECTICUT	05/14/1968	04/30/2018
2486	PINE	WISCONSIN ELECTRIC PWR CO	MON	3600		WI	PINE	09/26/1967	12/31/1993
* 2487	HOOSIC FALLS	HYDRO-POWER INC	NON	0	1050	NY	HOOSIC RIVER	06/03/1966	12/31/1993
* 2489	CAVENDISH	CENTRAL VERMONT PUBLIC SERVICE CORP	NON	1440		VT	BLACK	06/21/1967	12/31/1993
* 2490	TAFTSVILLE	CENTRAL VERMONT PUBLIC SERVICE CORP	NON	500		VT	OTTAUQUECHEE	06/03/1966	12/31/1993
* 2491	JIM FALLS	NORTHERN STATES POWER CO	MON	14400		WI	CHIPPEWA	03/06/1980	09/26/1983
* 2492	VANCEBORO RES	GEORGIA PACIFIC CORP	MON	0		ME	ST CROIX	04/04/1966	03/01/2016
* 2493	SNOQUALMIE FALLS	PUGET SOUND POWER & LIGHT CO	MON	41690		WA	SNOQUALMIE	05/13/1975	12/31/1993
* 2496	LEABURG	EUGENE CITY OF	MOP	13500		OR	MCKENZIE	06/03/1968	12/31/1993

* 2497	MT TOM MILL	LINWEAVE INC	MON	400		MA	CONNECTICUT CAN	03/24/1965	02/28/1991
* 2499	UNIONVILLE	RAQUETTE HYDRO POWER LIMITED	MON	1570		NY	RAQUETTE	11/10/1965	12/31/1993
* 2500	MECHANICVILLE	NIAGARA MOHAWK POWER CORP	MON	4500		NY	HUDSON	07/31/1968	12/31/1993
* 2503	KEOWEE & JOCASSEE	DUKE POWER CO	MON	157500		SC	KEOWEE & LITTLE KEOWEE	09/01/1966	08/31/2016
*				612000					
* 2506	ESCANABA	ESCANABA PAPER CO	MON	1950		MI	ESCANABA	04/12/1976	12/31/1993
*				0			ESCANABA		
*				2500			ESCANABA		
*				4740			ESCANBA		
* 2508	TENTH STREET	NORWICH CITY OF	MOP	1400		CT	SHETUCKET	04/15/1965	12/31/1993
* 2509	SHENANDOAH	POTOMAC EDISON CO	MON	862		VA	SHENANDOAH S FK	06/17/1966	12/31/1993
* 2510	WALTERVILLE	EUGENE CITY OF	MOP	8000		OR	MCKENZIE	05/23/1967	12/31/1993
* 2512	HAWKS NEST & GLEN FERRIS	ELKEM METALS COMPANY	MON	5450		WV	KANAWHA	03/09/1967	12/31/1987
*				102000			NEW		
* 2513	ESSEX NO 19	GREEN MOUNTAIN POWER CORP	MON	7200		VT	WINOOSKI	01/21/1969	12/31/1993
* 2514	BYLLESBY & BUCK	APPALACHIAN POWER CO	MON	21600		VA	NEW	04/03/1978	12/31/1993
*				8505			NEW		
* 2515	HARPERS FERRY	POTOMAC EDISON CO	MON	600		WV	POTOMAC	03/14/1966	12/31/1993
* 2516	DAM NO 4	POTOMAC EDISON CO	MON	1140	1160	WV	POTOMAC	12/07/1976	12/31/2003
* 2517	DAM NO 5	POTOMAC EDISON CO	MON	1120		WV	POTOMAC	12/07/1976	12/31/2003
* 2519	NORTH GORHAM	CENTRAL MAINE POWER CO	MON	2250		ME	PRESUMPSCOT	12/06/1966	12/31/1993
* 2520	MATTACEUNK	GREAT NORTHERN NEKOOSA CORP	MON	19200		ME	PENOBSCOT	01/09/1967	12/31/1987
* 2522	JOHNSON FALLS	WISCONSIN PUB SERV CORP	MON	3520		WI	PESHTIGO	08/21/1968	12/31/1993
* 2523	OCONTO FALLS	WISCONSIN ELECTRIC PWR CO	MON	1320		WI	OCONTO	04/14/1967	12/31/1993
* 2524	SALINA	GRAND RIVER DAM AUTHORITY	MOP	260000		OK	SALINA CREEK	01/23/1976	11/30/2015
* 2525	CALDRON FALLS	WISCONSIN PUB SERV CORP	MON	6400		WI	PESHTIGO	06/11/1969	12/31/1993
* 2527	SKELTON	CENTRAL MAINE POWER CO	MON	16800		ME	SACO	08/20/1968	12/31/1993
* 2528	CATARACT	CENTRAL MAINE POWER CO	MON	6650		ME	SACO	08/28/1968	12/31/1987
* 2529	BONNY EAGLE	CENTRAL MAINE POWER CO	MON	7200		ME	SACO	11/19/1970	12/31/1993
* 2530	HIRAM	CENTRAL MAINE POWER CO	MON	2400 18	8500	ME	SACO	12/22/1982	11/30/2022
* 2531	WEST BUXTON	CENTRAL MAINE POWER CO	MON	2625		ME	SACO	02/06/1968	12/31/1987
*				4000			SACO RIVER		
* 2532	LITTLE FALLS	MINNESOTA POWER & LIGHT CO	MON	3520	1250	MN	MISSISSIPPI	07/01/1969	12/31/1993
* 2533	BRAINERD	POTLATCH CORPORATION	MON	3342		MN	MISSISSIPPI	12/10/1976	12/31/1993
* 2534	MILFORD	BANGOR HYDRO-ELECTRIC CO	MON	6400		ME	PENOBSCOT	12/31/1969	12/31/1990
* 2535	STEVENS CREEK	SOUTH CAROLINA ELEC & GASCO	MON	18880		GA	SAVANNAH	01/20/1970	12/31/1993
* 2536	LIT QUINNESEC FLS	NIAGARA OF WISC PAPER	MON	8388		WI	MENOMINEE	04/29/1975	06/30/1993
* 2538	BEEBEE ISLAND	NIAGARA MOHAWK POWER CORP	MON	8000		NY	BLACK	05/27/1968	12/31/1993
* 2539	SCHOOL ST COHOES	NIAGARA MOHAWK POWER CORP	MON	38800		NY	MOHAWK	07/11/1969	12/31/1993

2541	CASCADE	UTILITIES HOLDING COMPANY	MON	825		NC	LITTLE	10/13/1970	12/31/1993
2543	MILLTOWN	MONTANA POWER CO THE	MON	3040		MT	CLARK FK	05/01/1965	12/31/1993
2544	MEYERS FALLS	WASHINGTON WATER PWR CO	MON	1200		WA	COLVILLE	08/24/1970	12/31/1993
2545	SPOKANE RIVER	WASHINGTON WATER PWR CO	MON	14750		WA	SPOKANE	08/17/1972	08/01/2007
				7200			SPOKANE		
				10000			SPOKANE		
				12000			SPOKANE		
				70000			SPOKANE		
2546	SANDSTONE	WISCONSIN PUB SERV CORP	MON	3840		WI	PESHTIGO	01/14/1969	12/31/1993
2548	BLACK	GEORGIA PACIFIC CORP	MON	855		NY	BLACK	05/10/1979	12/31/1988
				1050			BLACK		
				4850			BLACK		
2550	WEYAUWEGA	WISCONSIN ELECTRIC PWR CO	MON	400		WI	WAUPACA	04/26/1968	12/31/1993
2551	BUCHANAN	INDIANA AND MICH ELEC CO	MON	4105		MI	ST JOSEPH	12/15/1975	12/31/1993
2552	FORT HALIFAX	CENTRAL MAINE POWER CO	MON	1500		ME	SEBASTICOOK	09/12/1968	12/31/1993
2554	FEEDER DAM	MOREAU MANUFACTURING CORP	MON	6000		NY	HUDSON	07/31/1968	12/31/1993
2555	AUTOMATIC	CENTRAL MAINE POWER CO	MON	800		ME	MESSALONSKEE	08/30/1968	12/31/1993
2556	UNION GAS	CENTRAL MAINE POWER CO	MON	1500		ME	MESSALONSKEE	08/30/1968	12/31/1993
2557	RICE RIPS	CENTRAL MAINE POWER CO	MON	1600		ME	MESSALONSKEE	12/02/1963	12/31/1993
2558	OTTER CREEK	VERMONT MARBLE CO	MON	1160		VT	OTTER CR	04/26/1976	03/31/2012
				1400			OTTER CR		
				3930	3000		OTTER CR		
2559	OAKLAND	CENTRAL MAINE POWER CO	MON	2800		ME	MESSALNOSKEE STREAM	02/24/1949	12/31/1993
2560	POTATO RAPIDS	WISCONSIN PUB SERV CORP	MON	1380		WI	PESHTIGO	08/22/1968	12/31/1993
2561	NIANGUA	SHO ME POWER CORP	MON	3000		MO	NIANGUA	06/11/1975	12/31/1993
2564	ORIENTA	LAKE SUPERIOR DIST PWR CO	MON	800		WI	IRON	10/02/1968	12/31/1993
2566	WEBBER	CONSUMERS POWER CO	MON	2500		MI	GRAND	03/24/1981	04/01/2001
2567	WISSOTA	NORTHERN STATES POWER CO	MON	35280		WI	CHIPPEWA	06/19/1980	06/30/2000
2569	BLACK RIVER	NIAGARA MOHAWK POWER CORP	MON	5400		NY	BLACK	09/15/1977	12/31/1993
				5400			BLACK		
				16800			BLACK		
				6000			BLACK		
				2000			BLACK		
2570	RACINE L & D	OHIO POWER CO	MON	40000		OH	OHIO	12/27/1973	11/30/2023
2572	RIPOGENUS	GREAT NORTHERN PAPER CO	MON	37530		ME	PENOBSCOT W BR	12/02/1969	12/31/1993
2573	MONTEZUMA P S	ARIZONA POWER AUTHORITY	MOP		505400	AZ	OFF STREAM	06/12/1968	09/30/2022
2574	LOCKWOOD	MILSTAR MFG CORP	MON	4800		ME	KENNEBEC	12/31/1969	12/31/1993
2576	HOUSATONIC	CONNECTICUT LIGHT & POWER CO	MON	7200		CT	HOUSATONIC	09/18/1981	07/31/2001
				30000			HOUSATONIC		
				37200			HOUSATONIC		
				30500			HOUSATONIC		

#	2579	TWIN BRANCH	INDIANA AND MICH ELEC CO	MON	7260		IN	ST JOSEPH	06/21/1977	12/31/199
#	2580	TIPPY	CONSUMERS POWER CO	MON	20600		MI	MANISTEE	04/10/1977	12/31/199
#	2581	PESHTIGO	WISCONSIN PUB SERV CORP	MON	585		WI	PESHTIGO	08/08/1968	12/31/199
#	2582	STATION NO 2	ROCHESTER GAS AND EL CORP	MON	6500		NY	GENESEE	06/05/1967	12/31/199
#	2583	STATION NO 5	ROCHESTER GAS AND EL CORP	MON	38250		NY	GENESEE	07/05/1967	12/31/199
#	2584	STATION NO 26	ROCHESTER GAS AND EL CORP	MON	3000		NY	GENESEE	06/30/1967	12/31/199
#	2585	IDOLS	DUKE POWER CO	MON	1510		NC	YADKIN	07/28/1980	07/31/200
#	2586	GANTT	ALABAMA ELECTRIC COOP INC	MON	2440	670	AL	CONECUH	05/19/1980	04/30/200
#					0			CONECUH		
#	2587	SUPERIOR FALLS	LAKE SUPERIOR DIST PWR CO	MON	1320		WI	MONTREAL	10/09/1968	12/31/19
#	2588	LITTLE CHUTE	KAUKAUNA CITY OF	MOP	3300		WI	FOX	08/22/1980	07/31/20
#	2589	MARQUETTE	MARQUETTE CITY OF	MOP	3200		MI	DEAD	07/30/1981	07/30/20
#					0			DEAD		
#					700			DEAD		
#	2590	WISCONSIN RIVER DIVISION	CONSOLIDATED WATER PWR CO	MON	1800		WI	WISCONSIN	01/.6/19.5	06/30/19
#	2593	BEAVER RIVER	BEAVER FALLS POWER CO	MON	1500		NY	BEAVER	08/26/1968	12/31/19
#	2594	LAKE CREEK	MONTANA LT AND PWR	MON	4500		MT	LAKE CR	12/16/1981	11/30/20
#	2595	HIGH FALLS	WISCONSIN PUB SERV CORP	MON	7000		WI	PESHTIGO	01/12/1976	12/31/19
#	2596	STATION NO 160	ROCHESTER GAS AND EL CORP	MON	340		NY	GENESEE	04/13/1978	12/31/19
#	2597	FALLS VILLAGE	CONNECTICUT LIGHT & POWER CO	MON	9000		CT	HOUSATONIC	08/28/1981	08/30/20
#	2599	HODENPYL	CONSUMERS POWER CO	MON	18000		MI	MANISTEE	07/03/1976	12/31/19
#	2600	STANFORD	BANGOR HYDRO-ELECTRIC CO	MON	3000		ME	PENOBSCOT	02/03/1970	12/31/19
#	2601	BRYSON	NANTAHALA PWR AND LT CO	MON	980		NC	OCONALUFTEE	07/22/1980	07/31/20
#	2602	DILLSBORO	NANTAHALA PWR AND LT CO	MON	225		NC	TUCKASEGEE	07/17/1980	07/31/20
#	2603	FRANKLIN	NANTAHALA PWR AND LT CO	MON	1040		NC	LITTLE TENNESSEE	07/22/1980	07/31/20
#	2607	SPENCER MOUNTAIN	DUKE POWER CO	MON	640		NC	SOUTH FORK	03/02/1970	12/31/19
#	2608	WEST SPRINGFIELD	PRIMOID CORP ET AL	MON	0		MA	WESTFIELD	09/09/1968	12/31/19
#	2609	PALMER FALLS & CURTIS	INTERNATIONAL PAPER CO	MON	5000 LL	10300	NY	HUDSON	05/22/1980	04/30/20
#					7500 LL	48000		HUDSON		
#	2610	SAXON FALLS	LAKE SUPERIOR DIST PWR CO	MON	1250		MI	MONTREAL	12/10/1968	12/31/19
#	2611	WINSLOW	SCOTT PAPER CO	MON	3730		ME	KENNEBEC	07/01/1969	12/31/19
#	2612	FLAGSTAFF RES	CENTRAL MAINE POWER CO	MON	0		ME	DEAD	04/12/1979	12/31/19
#	2613	MOXIE RES	MADISON PAPER INDUSTRIES	MON	0		ME	MOXIE	06/11/1969	12/31/19
#	2614	GREENUP	VANCEBURG CITY OF	MOP	70560		OH	OHIO	03/29/1976	02/28/20
#	2615	BRASSUA RES	MADISON PAPER INDUSTRIES	MON	0		ME	MOOSE	09/16/1977	12/31/19
#	2616	HOOSIC	NIAGARA MOHAWK POWER CORP	MON	4800		NY	HOOSIC	01/22/1969	12/31/199
#					13120			HOOSIC		
#	2618	GRAND LAKE RES	GEORGIA PACIFIC CORP	MON	0		ME	ST CROIX W BR	09/04/1980	09/30/200

*								WEST BRANCH, ST CROIX		
*	2619	MISSION	NANTAHALA PWR AND LT CO	MON	1800		NC	HIWASSEE	08/04/1980	08/31/2005
*	2620	LOCKHART	LOCKHART POWER CO	MON	12300		SC	BROAD	04/18/1980	03/31/2000
*	2621	PACOLET S C	PACOLET MANUFACTURING CO	MON	800		SC	PACOLET	02/05/1982	01/31/2012
*	2622	TURNERS FALLS	HAMMERMILL PAPER CO	MON	937		MA	CONNECTICUT CAN	02/25/1969	02/28/1991
*	2628	R L HARRIS	ALABAMA POWER CO	MON		135000	AL	TALLAPOOSA	12/27/1973	11/30/2023
*	2629	MORRISVILLE	MORRISVILLE VILLAGE OF	MOP	2000		VT	LAMOILLE	08/28/1982	04/30/2015
*					0			LAMOILLE		
*						2500		GREEN RIVER		
*					1800			LAMOILLE		
*					1100			LAMOILLE		
*	2630	PROSPECT 1,2 & 4	PACIFIC POWER & LIGHT CO	MON	36750		OR	ROGUE	07/28/1980	07/01/2005
*	2631	WORONOCO	HAMMERMILL PAPER CO	MON	2690		MA	WESTFIELD	06/02/1981	09/01/2001
*	2634	GREAT NORTHERN STORAGE	GREAT NORTHERN NEKOOSA CORP	MOI			ME	PENOBSCOT W BR	04/18/1980	04/30/2000
*								RAGGED		
*								CAUCOMGOMOC		
*					0			PENOBSCOT W BR		
*	2639	CORNELL	NORTHERN STATES POWER CO	MON	30750		WI	CHIPPEWA	12/26/1973	11/30/2023
*	2640	UPPER HYDRO	FLAMBEAU PAPER CORP	MON	900		WI	FLAMBEAU N FK	08/05/1976	12/31/1993
*	2643	BEND	PACIFIC POWER & LIGHT CO	MON	1110		OR	DESCHUTES	05/01/1965	12/31/1993
*	2644	KANSAS RIVER	BOWERSOCK MLS AND PWR CO	MON	1850		KS	KANSAS	03/24/1977	12/31/1987
*	2645	BEAVER	NIAGARA MOHAWK POWER CORP	MON	4500		NY	BEAVER	07/03/1978	12/31/1993
*					1500			BEAVER		
*					8000			BEAVER		
*					4800			BEAVER		
*					1800			BEAVER		
*					6050			BEAVER		
*					15000			BEAVER		
*					2960			BEAVER		
*	2651	ELKHART	INDIANA AND MICH ELEC CO	MON	3440		IN	ST JOSEPH	05/08/1980	05/31/2000
*	2652	BIG FORK	PACIFIC POWER & LIGHT CO	MON	4150		MT	SWAN	09/24/1976	04/30/1990
*	2655	EAGLE & PHENIX	FIELDCREST MILLS INC	MON	4260		GA	CHATTAHOOCHEE	09/12/1978	12/31/1993
*	2659	POWERDALE	PACIFIC POWER & LIGHT CO	MON	6000		OR	HOOD	03/1[illegible]/1980	02/28/2000
*	2660	FORREST CITY RES	GEORGIA PACIFIC CORP	MON	0		ME	ST CROIX E BR	08/27/1980	08/31/2000
*	2661	HAT CREEK NO 1 & NO 2	PACIFIC GAS AND ELEC CO	MON	10100		CA	HAT CR	10/29/1975	09/30/2000
*					10000			HAT CR		
*	2662	SCOTLAND	CONNECTICUT LIGHT & POWER CO	MON	2000		CT	SHETUCKET	10/05/1982	08/31/2012
*	2663	PILLAGER	MINNESOTA POWER & LIGHT CO	MON	1520		MN	CROW WING	08/1[illegible]/1980	05/11/1997
*	2666	MEDWAY	BANGOR HYDRO-ELECTRIC CO	MON	3440		ME	PENOBSCOT W BR	03/29/1979	03/31/1999
*	2669	BEAR SWAMP P S	NEW ENGLAND POWER CO	MON	11250		MA	DEERFIELD RIVER	04/28/1970	03/31/2020
*					600000			DEERFILED RIVER		
*	2670	DELLS	N STATES PWR CO & CITY OF EAU CLAIRE	MOP	10280		WI	CHIPPEWA	09/30/1980	09/20/2000

*	2671	MOOSEHEAD LAKE	KENNEBEC WATER POWER COMPANY	MON	0		ME	KENNEBEC	08/05/1976	12/31/199
*	2674	VERGENNES NO 9	GREEN MOUNTAIN POWER CORP	MON	2400		VT	OTTER CR	06/29/1979	05/31/199
*	2677	BADGER-RAPIDE CROCHE	KAUKAUNA CITY OF	MOP	2000		WI	FOX	06/07/1977	10/31/198
*					3600			FOX		
*					2400			FOX		
*	2680	LUDINGTON P. S.	CONSUMERS & DETROIT EDISON	MON	1657500		MI	LAKE MICHIGAN	07/30/1969	06/30/201
*	2684	ARPIN	NORTH CENTRAL POWER CO	MON	1570		WI	CHIPPEWA EAST FK	06/03/1969	04/30/201
*	2685	BLENHEIM&GILBOA P S	POWER AUTHORITY OF THE STATE OF NY	MOP	1000000		NY	SCHOHARIE CR	06/06/1969	04/30/201
*	2686	WEST FORK	NANTAHALA PWR AND LT CO	MON	3000		NC	TUCKASEGEE W FK	01/28/1981	01/30/200
*					21600			TUCKASEGEE W FK		
*	2687	PIT NO 1	PACIFIC GAS AND ELEC CO	MON	63000		CA	FALL CR	11/06/1970	12/31/199
*	2689	OCONTO FALLS	SCOTT PAPER CO	MON	1860		WI	OCONTO RIVER	01/16/1973	12/31/199
*	2692	NANTAHALA	NANTAHALA PWR AND LT CO	MON	43200		NC	NANTAHALA	02/06/1981	02/28/200
*	2694	QUEENS CREEK	NANTAHALA PWR AND LT CO	MON	1440		NC	QUEENS CREEK	10/20/1976	09/30/200
*	2696	STUYVESANT FALLS	NIAGARA MOHAWK POWER CORP	MON	2800		NY	KINDERHOOK CR	08/07/1980	08/30/200
*	2697	CEDAR FALLS	NORTHERN STATES POWER CO	MON	6000		WI	RED CEDAR RIVER	01/06/1981	01/30/200
*	2698	EAST FORK	NANTAHALA PWR AND LT CO	MON	10800		NC	TUCKASEGEE E FK	01/23/1981	02/01/200
*					9000			TUCKASEGEE E FK		
*					6375			TUCKASEGEE E FK		
*	2699	ANGELS	PACIFIC GAS AND ELEC CO	MON	1400		CA	ANGELS CR	11/06/1970	12/31/199
*	2701	TRENTON FALLS & PROSPECT	NIAGARA MOHAWK POWER CORP	MON	24200	6000	NY	CANADA CR W	03/18/1983	02/28/202
*					17325			CANADA CR W		
*	2705	NEWHALEM	SEATTLE DEPT OF LIGHTING	MOP	1750		WA	NEWHALEM CR	01/01/1970	12/31/199
*	2709	DAVIS P S	MONONGAHELA PWR CO ET AL	MON		1000000	WV	BLACKWATER RIVER	04/21/1977	03/31/202
*	2710	ORONO	BANGOR HYDRO-ELECTRIC CO	MON	2332		ME	STILLWATER	11/10/1977	12/31/199
*	2711	TREGO	NORTHERN STATES POWER CO	MON	1200		WI	NAMEKAGON	03/11/1977	03/31/199
*	2712	STILLWATER	BANGOR HYDRO-ELECTRIC CO	MON	1950		ME	PENOBSCOT STILLWATER BR	08/10/1978	12/31/199
*	2713	OSWEGATCHIE	NIAGARA MOHAWK POWER CORP	MON	560	0	NY	OSWEGATCHIE	01/10/1983	12/31/201
*					1040	0		OSWEGATCHIE		
*					2700			OSWEGATCHIE		
*					2680			OSWEGATCHIE		
*					6000			OSWEGATCHIE		
*					15000			OSWEGATCHIE		
*	2715	COMBINED LOCKS	KAUKAUNA CITY OF	MON	2890		WI	FOX	09/23/1980	09/30/200
*	2716	BATH COUNTY	VIRGINIA ELECTRIC & POWER CO	MON		2100000	VA	LITTLE BACK CR	01/10/1977	08/31/202
*	2721	HOWLAND	BANGOR HYDRO-ELECTRIC CO	MON	1875		ME	PISCATAQUIS	09/12/1980	09/30/200
*	2722	PIONEER	UTAH POWER & LIGHT CO	MON	5000		UT	OGDEN	10/10/1980	08/31/200

* 2724	HAMILTON	HAMILTON CITY OF	MOP	1500		OH	MIAMI	09/04/1981	09/29/2001
* 2725	ROCKY MOUNTAIN P S	GEORGIA POWER CO	MON		675000	GA	HEATH CREEK	01/21/1977	12/31/2026
* 2726	MALAD	IDAHO POWER CO	MON	7200		ID	MALAD	08/09/1979	07/31/2004
*				13500			MALAD		
* 2727	ELLSWORTH & GRAHAM	BANGOR HYDRO-ELECTRIC CO	MON	0		ME	UNION	04/12/1977	12/31/1987
*				8900			UNION		
* 2731	WEYBRIDGE	CENTRAL VERMONT PUBLIC SERVICE CORP	MON	3000		VT	OTTER	03/12/1980	05/31/1980
* 2735	HELMS PUMPED STORAGE	PACIFIC GAS AND ELEC CO	MON		1050000	CA	HELMS CR	05/18/1976	04/30/2026
* 2736	AMERICAN FALLS	IDAHO POWER CO	MON	92400		ID	SNAKE	03/31/1975	02/28/2025
* 2737	MIDDLEBURY&LOWER	CENTRAL VERMONT PUBLIC SERVICE CORP	MON	2250		VT	OTTER CREEK	07/08/1980	07/01/2000
* 2738	SARANAC	NEW YORK ST EL AND G CORP	MON	2250	3400	NY	SARANAC	09/23/1980	04/12/2006
*				6400	4200		SARANAC		
*				2400			SARANAC		
*				14100			SARANAC		
* 2739	MELDAHL	VANCEBURG CITY OF	MOP		70300	KY	OHIO	03/05/1982	02/29/2032
* 2740	BAD CREEK P.S.	DUKE POWER CO	MON		1000000	SC	WHITEWATER	08/01/1977	07/31/2027
* 2741	PINE FLAT	KINGS RIVER CONSERVATION DIST	MON		165000	CA	KINGS RIVER	09/25/1979	08/31/2029
* 2742	SOLOMON GULCH	COPPER VALLEY ELEC ASSN INC	MON	18000		AK	SOLOMON	06/21/1978	05/31/2028
* 2743	TERROR LAKE	ALASKA POWER AUTHORITY	MON		20000	AK	TERROR	10/05/1981	10/31/2031
* 2758	CROCKER MILL	LINWEAVE INC	MON	280		MA	CONN	06/07/1977	02/28/1991
* 2766	ALBIN MILL (D WHEEL)	LINWEAVE INC	MON	400		MA	CONNECTICUT	07/06/1977	02/28/1991
* 2768	ALBIN MILL (A WHEEL)	LINWEAVE INC	MON	250		MA	CONNECTICUT	07/06/1977	02/28/1991
* 2769	RAYSTOWN LAKE	ALLEGHENY ELEC COOP & PENN ELEC CO	MON		20300	PA	JUNIATA	11/10/1982	10/30/2032
* 2770	CROCKER MILL (C WHEEL)	LINWEAVE INC	MON	240		MA	CONNECTICUT	07/06/1977	02/28/1991
* 2771	NONOTUCK MILL	LINWEAVE INC	MON	400		MA	CONNECTICUT	07/06/1977	02/28/1991
* 2772	LINWEAVE WAREHSE(A WHEEL)	LINWEAVE INC	MON	460		MA	CONNECTICUT	07/06/1977	02/28/1991
* 2775	LINWEAVE WAREHSE(D WHEEL)	LINWEAVE INC	MON	360		MA	CONNECTICUT	07/06/1977	02/28/1991
* 2777	UPPER SALMON	IDAHO POWER CO	MON	34500		ID	SNAKE	06/13/1977	05/31/1999
* 2778	SHOSHONE FALLS	IDAHO POWER CO	MON	12400		ID	SNAKE	06/13/1977	05/31/1999
* 2780	MONTICELLO	SOLANO IRRIGATION DIS.	MOP		11500	CA	PUTAH CR	01/29/1981	01/01/2031
* 2782	RED CREEK	PAROWAN CITY CORPORATION	MOP	500		UT	RED CREEK	04/13/1978	04/30/2003
* 2788	COLLIERSVILLE	STAPENHORST F W E INC	MON	1450		NY	SUSQUEHANNA	03/13/1979	02/28/2019
* 2790	LOWELL HYDRO	BOOTT MILLS ETAL	MON		15000	MA	MERRIMACK	04/13/1983	04/30/2023
*				530	265		MERRIMACK CANAL		
*				1180			HAMILTON CANAL		
*				2100	400		EASTERN CANAL		
*				1080			EASTERN CANAL		
*				1250	1110		EASTERN CANAL		
* 2794	PICKELL, J.W.	PICKELL JACK W	MON	20		ID	SLAUGHTER CREEK	08/16/1979	08/30/2006
* 2800	LAWRENCE	LAWRENCE HYDRO ASSOC	MON	16800		MA	MERRIMACK	12/04/1978	11/30/2028
* 2801	GLENDALE	HEATHER MARY C	MON	0		MA	HOUSATONIC	11/23/1979	10/31/2009
* 2804	GOOSE	MAINE HYDRO DEV CORP	MON	94		ME	GOOSE	03/24/1980	02/29/2020
*				55			GOOSE		
*					75		GOOSE		
*				0			GOOSE		

3011	ARCTIC	ARCTIC DEVELOPMENT CORP	MON		373	RI	PAWTUXET RIVER	01/25/1983	12/21/2022
3012	SAYBROOKE	SAYBROOKE MANUFACTURING CO	MON		235	RI	SOUTH BRANCH PATUXET RIVER	01/25/1983	12/31/2023
3013	NATICK DAM	QUIDNIC RESERVOIR CO	MON		512	RI	PAWTUXET RIVER	07/06/1983	06/30/2023
3015	TYEE LAKE	ALASKA POWER AUTHORITY	MOP		20000	AK	TYEE LAKE	09/29/1981	07/31/2031
3017	JETTY LAKE	MATHEWS RICH & SMITH PETER	MON	50	50	AK	JETTY LAKE	08/05/1981	06/30/2030
3023	TUPPERWARE	DART INDUSTRIES	MON		1724	RI	BLACK STONE	10/24/1980	09/30/2020
3024	HOLLYWOOD	RICHMOND CITY OF	MOP	2075		VA	JAMES RIVER-KANAWHA CANAL	08/06/1982	07/31/2002
3029	BYRD PARK	RICHMOND CITY OF	MOP	1125		VA	JAMES	08/12/1982	07/31/2002
3030	ELK RAPIDS	ANTRIM COUNTY	MOP		700	MI	ELK	02/09/1981	03/01/2001
3031	GARLAND CANAL	SHOSHONE IRRIGATION DISTRICT	MOP	2400		WY	GARLAND CANAL	10/09/1981	09/30/2031
3033	DAM NO. 2	ARKANSAS ELECTRIC COOP CORP &	MON		120000	AR	ARKANSAS RIVER	08/10/1983	07/31/2033
3034	LOCK AND DAM NO.3	ARKANSAS ELECTRIC COOP &	MON		48000	AR	ARKANSAS RIVER	08/10/1983	07/31/2033
3036	NORTH MISSISSIPPI	MUNICIPAL ENERGY AGENCY OF MISS	MOP		16000	MS	LITTLE TALLAHATCHIE RIVER	04/15/1983	03/31/2033
					7500		YACONA RIVER		
					7700		COLDWATER RIVER		
					13200		YALOBUSHA RIVER		
3037	ELIZABETH WEBBING MILLS	ROOSEVELT HYDRO ELECTRIC COMPANY	MON	700		RI	BLACKSTONE RIVER	07/13/1981	06/30/2021
3038	SUCCESS	LOWER TULE RIVER IRR DIST	MOP		1400	CA	TULE RIVER	08/22/1983	07/31/2033
3041	HETTINGER	MACKAY BAR CORP	MON	12		ID	SMITH CR	11/14/1980	10/31/2010
3043	LOCK & DAM NO. 13	ARKANSAS ELECTRIC COOP CORP &	MON		33200	AR	ARKANSAS RIVER	10/18/1983	09/30/2083
3044	LOCK & DAM NO. 9	ARKANSAS ELECTRIC COOP CORP &	MOP		42400	AR	ARKANSAS RIVER	07/20/1983	06/30/2033
3052	BLACK RIVER FALLS	BLACK RIVER FALLS CITY OF	MOP	920		WI	BLACK RIVER	08/28/1981	08/30/2001
3063	CENTRAL FALLS	GELARDIN BRUNER COTT INC	MON		818	RI	BLACKSTONE RIVER	08/28/1981	07/31/2021
3073	CLIFFORD ROSENBALM	ELLIS WAYNE R	MON	8		ID	BEAR CR	10/31/1980	12/31/2004
3074	UPRIVER	SPOKANE CITY OF	MOP	5550	9000	WA	SPOKANE	06/04/1981	05/31/2031
3090	LYNDONVILLE, VILLAGE OF	LYNDONVILLE VILLAGE OF	MOP	350		VT	PASSUMPSIC	01/23/1981	02/01/2001
3102	HIGH SHOALS	BRACEWELL GAYNOR L	MON	1000	1000	GA	APALACHEE	08/07/1981	08/30/2021
3107	NEWFOUND	NEWFOUND HYDROELECTRIC COMPANY	MON		1487	NH	NEWFOUND RIVER	11/06/1981	10/31/2031
3131	BROCKWAYS MILLS	WILLIAMS RIVER ELECTRIC CORP	MON		1115	VT	WILLIAMS RIVER	01/20/1983	12/31/2032
3133	ERROL	PUBLIC SVC CO OF NH & UNION WTR PWR	MON		2010	NH	ANDROSCOGGIN RIVER	08/29/1983	07/31/2023
3155	CARBONTON DAM	JORDAN JOHN M	MON		1000	NC	DEEP RIVER	07/09/1982	06/30/2022
3156	WORTHVILLE DAM	JORDAN JOHN M	MON	0	280	NC	DEEP RIVER	10/28/1982	09/30/2022
3166	NATIONAL FIBER UPPER	NATIONAL FIBER INSULATION CO INC	MON	0	63	MA	SWIFT RIVER	04/29/1982	03/31/2022
3174	VALLECITO	PTARMIGAN RESOURCES & ENERGY INC	MON		2350	CO	LOS PINOS RIVER	10/05/1983	09/30/2033
3189	ROCK CREEK	KEATING JOSEPH M	MON		3000	CA	ROCK CREEK	04/29/1983	03/31/2033
3190	BLACK BUTTE	SANTA CLARA CITY OF	MOP		6800	CA	STONY CREEK	05/05/1983	04/30/2033
3193	STONY GORGE	SANTA CLARA CITY OF	MOP	0	3900	CA	STONY CREEK	08/31/1982	07/31/2032
3195	SAYLES FLAT	KEATING JOSEPH M	MON		2950	'A	SOUTH FORK AMERICAN RIVER	09/26/1983	08/31/2033

* 2897	SACCARAPPA	S D WARREN COMPANY	MON	1350		ME	PRESUMPSCOT	10/31/1979	10/01/1999
* 2901	HOLCOMB ROCK	OWENS-ILLINOIS INC	MON	1875		VA	JAMES	01/29/1981	01/31/2001
* 2902	BIG ISLAND	OWENS-ILLINOIS INC	MON	960		VA	JAMES	12/08/1980	01/01/2001
* 2903	NEW HOGAN	CALAVERAS COUNTY WATER DISTRICT	MOP		2500	CA	CALAVERAS RIVER	11/22/1982	10/31/2032
* 2905	ENOSBERG FALLS	VERMONT PUB PWR SUP AUTH	MOP	750	2000	VT	MISSISQUOI RIVER	07/12/1983	04/30/2023
* 2907	DRY CREEK	SAVAGE TERRY & CELIA	NON		12	MT	DRY CREEK	09/26/1979	08/31/2029
* 2911	SWAN LAKE	ALASKA POWER AUTHORITY	MOP		22000	AK	FALLS CREEK	07/17/1980	07/01/2030
2912	DEMOPOLIS	ALABAMA ELECTRIC COOP INC	MON	0	37500	AL	TOMBIGBEE RIVER		
2916	LOWER MOKELUMNE	EAST BAY MUNICIPAL UTIL DIST	MOP	18750	9900	CA	LOWER MOKELUMNE	03/10/1981	03/31/2031
					10680				
2926	RUSSELL D. SMITH	QUINCY-COLUMBIA BASIN IRRIGAT DIST	MOP	5000		WA	POTHOLES EAST CANAL	03/27/1980	02/28/2030
2927	AQUAMAC	AQUAMAC CORPORATION	NON	250		MA	MERRIMACK	10/31/1979	10/01/1999
2928	MERRIMACK	MERRIMACK PAPER COMPANY	NON	138		MA	MERRIMACK	12/27/1979	10/30/1999
				400			MERRIMACK		
				550			MERRIMACK		
2930	NORTH FORK PAYETTE RIVER	IDAHO POWER CO	MON		174000	ID	NORTH FORK PAYETTE RIVER	06/28/1982	05/31/2032
					99000		NORTH FORK PAYETTE RIVER		
2931	GAMBO	S D WARREN COMPANY	MON	1900		ME	PRESUMPSCOT	09/30/1980	09/30/2000
2932	MALLISON FALLS	S D WARREN COMPANY	NON	800		ME	PRESUMPSCOT	05/14/1980	05/31/2000
2934	UPPER MECHANICVILLE	NEW YORK ST EL AND G CORP	MON	16800		NY	HUDSON	04/2. /1981	03/31/2021
2935	GRANITEVILLE	GRANITEVILLE COMPANY	NON	1200		GA	AUGUSTA CANAL	12/26/1981	09/30/2001
2937	QUINCY CHUTE	QUINCY-COLUMBIA BASIN IRRIGAT DIST	MOP	0	7800	WA	WEST CANAL OF USBR	08/20/1982	07/31/2032
2941	LITTLE FALLS	S D WARREN COMPANY	NON	1000		ME	PRESUMPSCOT	05/28/1980	05/31/2000
2942	DUNDEE	S D WARREN COMPANY	MON	2400		ME	PRESUMPSCOT	09/17/1981	09/30/2001
2952	GEM STATE	IDAHO FALLS CITY OF	MOP	0	22300	ID	SNAKE RIVER	12/12/1983	11/30/2023
2954	GIBRALTER	SANTA BARBARA CITY OF	NOP		1500	CA	SANTA YNEZ R	04/13/1981	04/01/2031
2955	NORMANSKILL	WATERVLIET CITY OF	NOP		850	NY	NORMANS KILL	03/05/1982	02/28/2022
2958	MADERA CANAL	MADERA CHOWCHILLA POWER AUTHORITY	MOP	0	1800	CA	MADERA CANAL	06/08/1982	05/31/2032
				0	675		MADERA CANAL		
				0	800		MADERA CANAL		
2959	TOLT RIVER - SOUTH FORK	SEATTLE DEPT OF LIGHTING	MOP		15000	WA	SOUTH FORK TOLT RIVER	03/29/1984	02/28/2024
2960	GONZALES	GONZALES CITY OF	NOP	1140		TX	GUADALUPE	08/25/1980	07/31/2020
2964	STURGIS	STURGIS CITY OF	MOP	2720		MI	ST JOSEPH	04/17/1980	03/31/2000
2966	CLEMENT DAM	KATSEKAS JAMES C & DIMOS ZOES	MON		2400	NH	WINNIPESAUKEE RIVER	05/17/1982	04/30/2032
2972	WOONSOCKET FALLS	WOODSOCKET CITY OF	NOP		1100	RI	BLACKSTONE RIVER	11/06/1980	11/30/2020
2975	SAND BAR	OAKDALE & SOUTH SAN JOAQUIN I D S	MOP		15600	CA	MIDDLE FORK STANISLAUS RIVER	09/08/1983	08/31/2033
2984	EEL WEIR	S D WARREN COMPANY	MON	1800		ME	PRESUMPSCOT	03/16/1984	03/31/2004
2985	WILLOW MILL	MEAD CORP	NON		465	MA	HOUSATONIC	05/01/1981	04/30/2011
2987	CORNWELL	CORNWELL HOWARD W & VERNA JEAN	NON		12	CA	MERRIL	05/07/1980	04/30/2030
2997	CAMP FAR WEST	SOUTH SUTTER WATER DISTRICT	MOP		6800	CA	BEAR RIVER	07/02/1981	07/01/2021
3010	CENTERVILLE	VALLEY INDUSTRIES INC	NON		155	RI	SO.BR. PAWTUXUENT RIDER	01/25/1983	12/31/2022

*					200		GOOSE		
* 2808	BARKERS MILL	MAINE HYDRO DEV CORP	MON	1500		ME	LITTLE ANDROSCOGG IN	02/23/1979	01/31/2019
* 2809	AMERICAN TISSUE	GARDINER HYDRO COMPA NY	MON	900		ME	COBBOSSEECONTEE	05/09/1975	04/30/2019
* 2814	GREAT FALLS	PATTERSON CITY OF	MOP		7500	NJ	PASSAIC	03/11/1981	02/28/2021
* 2816	NORTH HARTLAND	VERMONT ELEC GEN & T RANS COOP INC	MON		4000	VT	OTTAUQUECHEE RIVE R	11/24/1981	11/30/2021
* 2818	GREEN LAKE	SITKA CITY & BOROUGH OF	MOP	16500		AK	VODOPAD	04/05/1979	03/31/2029
* 2821	PORTLAND NO 1 & NO 2	PORTLAND CITY OF	MOP	13750		OR	BULL RUN	03/22/1979	02/28/2029
*				11875			BULL RUN		
* 2823	BOISE CASCADE	BEAVER FALLS POWER C O	MON	1000		NY	BEAVER	10/18/1979	09/30/2019
* 2829	LOVELAND	LOVELAND CITY OF	MOP	900		CO	BIG THOMPSON R	06/30/1978	03/07/2016
* 2832	LUCKY PEAK	BOISE PROJ BD OF CON TROL	MON		87500	ID	BOISE	06/10/1980	05/31/2030
* 2835	RAINBOW FALLS & TAYL OR POND	NEW YORK ST EL AND G CORP	MON	0		NY	BLACK BROOK	11/26/1982	10/31/2002
*				2112			AUSABLE		
* 2837	GRANBY	NIAGARA MOHAWK POWER CORP	MON	10000		NY	OSWEGO	04/07/1980	03/31/2020
* 2839	GREAT FALLS	LYNDONVILLE VILLAGE OF	MOP	1200		VT	PASSUMPSIC	06/29/1979	05/31/2019
* 2840	P.E.C. HEADWORKS	QUINCY-COLUMBIA BASI N IRRIGAT DIST	MOP		6500	WA	POTHOLES EAST CAN AL	09/21/1982	09/30/2032
2841	LAKE MENDOCINO	UKIAH CITY OF	MOP		3500	CA	EAST FORK RUSSIAN RIVER	04/10/1982	03/31/2032
2842	IDAHO FALLS	IDAHO FALLS CITY OF	MOP	11000		ID	SNAKE	02/08/1979	01/31/2029
				8000			SNAKE		
				8000			SNAKE		
2848	CASCADE	IDAHO POWER CO	MON		12800	ID	PAYETTE N FK	02/17/1981	01/31/2031
2849	MAIN CANAL HEADWORKS	QUINCY-COLUMBIA BASI N IRRIGAT DIST	MOP		18000	WA	MAIN CANAL	11/16/1981	11/30/2031
2850	EMERYVILLE	HAMPSHIRE PAPER COMP ANY	MON	1740		NY	OSWEGATCHIE	06/17/1982	05/31/2012
* 2851	NATURAL DAM	JAMES RIVER-GROVETON INC	MON	1020		NY	OSWEGATCHIE	04/13/1982	04/30/2012
* 2852	KEUKA	NEW YORK ST EL AND G CORP	MON	2000		NY	LAMOKA	03/14/1983	02/28/2003
* 2854	OLD RIVER	VIDALIA TOWN OF	MOP		192000	LA	MISSISSIPPI RIVER	01/27/1982	12/31/2031
* 2861	PONTOOK	SHAW ROBERT	MON		8575	NH	ANDROSCOGGIN	10/02/1981	09/30/2031
* 2866	LOCKPORT	METRO SAN DIST GR CH ICAGO	MOP	13500		IL	CHICAGO SAN & SHI P CANAL	12/04/1981	11/30/2001
* 2874	BARREN RIVER	GLASGOW CITY OF	MOP		6750	KY	BARREN RIVER	09/16/1983	08/31/2033
* 2879	BOLTON FALLS	GREEN MOUNTAIN POWER CORP	MON		8790	VT	WINOOSKI	02/05/1982	01/31/2022
* 2880	CHEROKEE FALLS	BROAD RIVER EL COOP &	MON		3500	SC	BROAD RIVER	08/03/1981	07/31/2021
* 2883	FRIES	RIEGAL TEXTILE CORP	MON	7017		VA	NEW RIVER	06/10/1980	06/01/2020
* 2888	WHISKEY TOWN	REDDING CITY OF	MOP		3240	CA	CLEAR CREEK	03/10/1983	02/28/2023
* 2890	DINKEY CREEK	KINGS RIVER CONSERVA TION DIST	MOP		120000	CA	KINGS	03/22/1982	02/29/2032
* 2891	JACKSON BLUFF	TALLAHASSEE CITY OF	MOP		10900	FL	OCHLOCKONEE	07/14/1982	06/30/2022
* 2892	FRIANT POWER PROJECT	FRIANT POWER AUTHORI TY	MOP		40000	CA	SAN JOAQUIN RIVER	09/30/1982	08/31/2032
* 2893	SAXTONS RIVER	BSR COMPANY INC	MON		1500	VT	SAXTONS RIVER	03/11/1982	02/29/2032
* 2894	BLACK BROOK	NORTHWESTERN WIS ELE C CO	MON	650		WI	APPLE	01/22/1980	12/31/2020
* 2895	APPLETON UPPER DAM	KIMBERLY-CLARK CORP	MON		900	WI	FOX RIVER	08/10/1982	07/31/2022

3202	AVALON DAM	JORDAN JOHN M	MON	0	600	NC	MAYO RIVER	05/14/1982	04/30/2022
3203	MAYO DAM	JORDAN JOHN M	NON	0	500	NC	MAYO RIVER	10/18/1982	09/30/2022
3207	CONEMAUGH	SALTSBURG BOROUGH OF & SEE REMARKS	MON		14000	PA	CONEMAUGH RIVER	06/16/1982	05/31/2032
3211	HINCKLEY	POWER AUTHORITY OF THE STATE OF NY	MOP		9000	NY	WEST CANADA CREEK	08/12/1982	07/31/2002
3228	MAHONING	ATLANTIC POWER DEVELOPMENT CORP.	MON		5000	PA	MAHONING CREEK	01/26/1984	12/31/2034
3251	CORNELL UNIVERSITY	CORNELL UNIVERSITY	NON	1500		NY	FALL CREEK	07/28/1981	06/30/2021
3253	CAMPTON HYDRO	DULE & ROBERTS SALES CORP	NON		382	NH	MAD RIVER	11/09/1982	10/31/2022
3255	LYONSDALE	LYONSDALE ASSOCIATES	MON		3000	NY	MOOSE RIVER	03/22/1983	02/28/2023
3267	BALLARD MILL	GREATER MALONE COMMUNITY COUNCIL IN	NON	125	150	NY	SALMON RIVER	04/19/1982	03/31/2022
3273	CHITTENDEN FAL'S	CHITTENDEN FALLS HYDRO POWER INC	NON		550	NY	KINDERHOOK CREEK	06/2'/198;	05/31/2021
3286	BEAR CREEK	PUGET SOUND POWER & LIGHT CO	MON		4000	WA	BEAR CREEK	12/1./1982	11/30/2023
3295	SUMMER FALLS	SOUTH COLUMBIA IRRIGATION DISTRICT	MOP		74000	WA	MAIN CANAL	08/14/1981	07/31/2031
3307	TIONESTA LAKE	HYDRO CORPORATION OF PENNSYLVANIA	MON		5000	PA	TIONESTA CREEK	01/26/1984	12/31/2033
3309	NASH MILL	COHEN ARTHUR	NON		90	NH	ASHUELOT RIVER	12/30/1982	11/30/2022
3342	PENACOOK LOWER FALLS	NEW HAMPSHIRE HYDRO ASSOCIATES	MON	4000		NH	CONTOOCOOK RIVER	11/17/1982	10/31/2022
409	BOYNE RIVER DAM	BOYNE USA INC	NON		250	MI	BOYNE RIVER	02/22/1982	01/31/2022
410	WOODS LAKE	WOODS LAKE RANCH	NON	30	0	CO	LIME CREEK	02/01/1983	01/31/2003
442	MINE FALLS	NASHUA CITY OF	MOP		3032	NH	NASHUA RIVER	08/04/1983	07/31/2023
449	MURRAY LOCK & DAM NO. 7	NORTH LITTLE ROCK CITY OF	MOP		36800	AR	ARKANSAS RIVER	08/17/1983	07/31/2033
450	EASTVALE	BEAVER FALLS MUNICIPAL AUTHORITY	NOP		440	PA	BEAVER RIVER	12/15/1983	11/30/2023
452	OAK ORCHARD	NIAGARA MOHAWK POWER CORP	NON	350		NY	OAK ORCHARD CREEK	07/15/1981	07/01/2021
472	WYRE-WYND	SOUTHWIRE COMPANY	MON		2745	CT	QUINEBAUG RIVER	05/19/1872	04/30/1982
509	LITTLE FALLS	LITTLE FALLS HYDROELECTRIC ASSOC	MON		13500	NY	MOHAWK RIVER	09/19/1983	08/31/2023
511	GROVEVILLE	VAN GROVEVILLE HYDRO ASSOCIATES	NON		737	NY	FISHKILL CREEK	06/04/1982	05/31/2022
512	BRAENDLY HYDRO	GOODMAN DAVID & OLIGER GEORGE R	NON		940	NY	FISHKILL CREEK	01/26/1984	12/31/2024
516	HART LAKE	HART CITY OF	NOP	160	0	MI	PENTWATER RIVER	10/29/1982	09/30/2002
562	BARKERS MILL UPPER DAM	MAINE HYDRO-ELEC DEV CORP	NON		950	ME	LITTLE ANDROSCOGGIN RIVER	08/22/1983	07/31/2023
603	RUEDI	ASPEN CITY OF & PITKIN COUNTY	MOP		3200	CO	FRYINGPAN RIVER	09/08/1983	08/31/2033
706	MUSSERS DAM	AMERICAN HYDRO POWER CO	NON	340		PA	MIDDLE CREEK	07/30/1982	06/30/2022
777	ROLLINSFORD	ROLLINSFORD TOWN OF	NOP	1492		NH	SALMON FALLS ROVER	09/18/1981	08/31/2021
816	SOUTHSIDE CANAL	ENERGENICS SYSTEMS INC	MON		3950	CO	SOUTHSIDE CANAL	05/05/1983	04/30/2033
819	MT ELBERT	ENERGENICS SYSTEMS INC	MON		2800	CO	MT. ELBERT CONDUIT	11/18/1982	10/31/2032
820	SOMERSWORTH	GENERAL ELECTRIC COMPANY	NON		1500	NH	SALMON FALLS RIVER	09/29/1981	08/31/2021
842	E.B.C. 4.6 POWER PLANT	QUINCY-COLUMBIA BASIN' IRRIGAT DIST	MOP	2200		WA	ELTOPIA BRANCH CANAL	12/09/1981	12/31/2031
843	P.E.C. 66.0 POWER PLANT	QUINCY-COLUMBIA BASIN IRRIGAT DIST	MOP		2300	WA	POTHOLES EAST CANAL	12/09/1981	12/31/2031

Question 2. Since the Commission began relicensing hydroelectric facilities, how many such facilities have been relicensed? Please identify these facilities by the factors set forth in Question 1. How many of these new licenses have been issued to the entity holding the license which expired?

Answer 2. Ninety-one of the projects licensed by the FERC have been relicensed. In the table included in the answer to Question 1, an "R" has been placed in the left margin and the project numbers have been underlined to indicate relicensed projects. New licenses for all of these projects have been issued to the entity holding the license which expired.

Question 3. How many contested relicensing procedures are present pending before the Commission? Please identify the facilities at issue by the factors set forth in question 1, above.

Answer 3. There are currently 12 relicensing proceedings involvin competing applications before the Commission. These facilities are identified below by the factors set forth in question 1. The informati includes all requested factors except the average annual capacity facto which is not available from data presently maintained by the Department of Energy.

Project Name and Number

a. owner (including whether owner is a "state" or "municipality" other)
b. rated capacity
c. location
d. expiration date of current license
e. date of relicensing, if applicable
f. competing applicant name(s) and designated FERC project number(s).

(Note: When a license expires, the project continues to operate u automatically-issued annual licenses. See Sec. 15(a), 16 U.S.C. 8

1. Mokelumne Project No. 137

a. Pacific Gas and Electric Company (private)
b. 192,750 KW
c. North Fork Mokelumne River, CA.
d. 11/23/75
e. has not yet been relicensed
f. The City of Santa Clara, CA. (municipal) filed a competing app designated as FERC Project No. 2745.

2. Olmsted Project No. 596

a. Utah Power and Light Company (private)
b. 10,300 KW
c. Provo River, Utah
d. 10/20/75
e. has not yet been relicensed
f. The City of Bountiful, Utah (municipal) and Utah Municipal Power Company (municipal) filed competing applications designated as FERC Project Nos. 4040 and 4029, respectively.

3. Rock Creek-Cresta Project No. 1962
   a. Pacific Gas and Electric Company (private)
   b. 180,900 KW
   c. North Fork Feather River, CA.
   d. 9/30/82
   e. has not yet been relicensed
   f. Sacramento Municipal Utility District, Northern California Power Agency and the Cities of Anaheim, Azusa, Banning, Colton and Riverside, CA. (municipal) filed a competing application designated as FERC Project No. 3223.

4. Weber Project No. 1744
   a. Utah Power and Light Company (private)
   b. 3,465 KW
   c. Weber River, Utah
   d. 6/30/70
   e. has not yet been relicensed
   f. The City of Bountiful, Utah (municipal) filed a competing application designated as FERC Project No. 2747.

5. Phoenix Project No. 1061
   a. Pacific Gas and Electric Company (private)
   b. 1,800 KW
   c. South Fork Stanislaus River, CA.
   d. 12/25/80
   e. has not yet been relicensed
   f. The Tuolumne County Water District (municipal) filed a competing application designated as FERC Project No. 4309.

6. Shawano Project No. 710
   a. Wisconsin Power and Light Company (private)
   b. 640 KW
   c. Wolf River, WI
   d. 7/19/77
   e. has not yet been relicensed
   f. The City of Shawano (municipal) filed a competing application designated as FERC Project No. 2865.

7. Haas-Kings River Project No. 1988
   a. Pacific Gas and Electric Company (private)
   b. 225,000 KW
   c. North Fork Kings River, CA.

- d. 3/31/85
- e. has not yet been relicensed
- f. Sacramento Municipal Utility District et al. (municipal) fi a competing application designated as FERC Project No. 672

8. Rush Creek Project No. 1389

- a. Southern California Edison Company (private)
- b. 8,400 KW
- c. Rush Creek, CA
- d. 11/30/86
- e. has not yet been relicensed
- f. June Lake Public Utility District (municipal) filed a comp application designated as FERC Project No. 6930.

9. Poole Project No. 1388

- a. Southern California Edison Company (private)
- b. 10,000 KW
- c. Lee Vining Creek, CA
- d. 11/30/86
- e. has not yet been relicensed
- f. City of Vernon, CA. (municipal) filed a competing applicat designated as FERC Project No. 7263.

10. Walters Project No. 432

- a. Carolina Power and Light Company (private)
- b. 108,000 KW
- c. Pigeon River, N.C.
- d. 11/22/76
- e. has not yet been relicensed
- f. North Carolina Electric Membership Corporation (private) filed a competing application designated as FERC Project No. 2748.

11. Kerr Project No. 5

- a. The Montana Power Company (private)
- b. 168,000 KW
- c. Flathead River, Montana
- d. 5/22/80
- e. has not yet been relicensed
- f. The Confederated Salish and Kootenai Tribes of the Flath Reservation (private) filed a competing application desig as FERC Project No. 2776.

12. Grandfather Falls Project No. 1966

   a. Wisconsin Public Service Company (private)
   b. 17,240 KW
   c. Wisconsin River, WI.
   d. 12/31/87
   e. has not yet been relicensed
   f. The Wisconsin Public Power Inc. System (municipal) filed a competing application designated as FERC Project No. 8243.

Question 4. How many existing licenses for facilities identified in response to Question 1 are held by States or municipalities? Please identify these facilities by the factors set forth in Question 1. What standard of compensation would be applied to these facilities were an entity other than the existing licensee to receive the license?

Answer 4. States and municipalities hold 158 licenses. These licenses are identified in the table included in Answer 1. In that table, the letter "P" in the third digit of an entry under the heading labeled "LT" identifies the licensee as a State or municipality.

The provisions set forth in Section 14 (a) of the Federal Power Act require payment of the net investment of the licensee in the project or projects taken over, not to exceed the fair value of the property taken, plus severance damages, if any. Section 14 also provides that the amount of the licensee's net investment in a project or projects and the amount of severance damages, if any, are to be determined by the Commission after notice and opportunity for hearing.

Question 8. Please supply one copy of the Commission order establishing the docket and nature of proceeding in the City of Bountiful case.

Answer 8. Attached is the "Order Granting Interventions and Setting Briefing Schedule" in Docket No. EL78-43, issued May 3, 1979.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Georgiana Sheldon, Acting Chairman;
Matthew Holden, Jr., and George R. Hall.

City of Bountiful, Utah) Utah Power and Light Company) City of Santa Clara, California) Pacific Gas & Electric Company)	Docket No. EL78-43

ORDER GRANTING INTERVENTIONS AND SETTING BRIEFING SCHEDULE

(Issued May 3, 1979)

The City of Bountiful, Utah (Bountiful) and the City of Santa Clara, California (Santa Clara) have filed petitions for a declaratory order determining that the preference provided under section 7(a) of the Federal Power Act 1/ (Act) for a "municipality" within the meaning of section 3(7) 2/ applies against a non-public "original licensee" in a relicensing proceeding under section 15. 3/ Santa Clara's petition also raises the question of whether a present licensee who holds the license as an assignee or successor in interest 4/ is considered an "original licensee" under section 15. The petitions have been consolidated in a single docket and notice has been issued.

Related Motions

Clark-Cowlitz Joint Operating Agency (CCJOA) has filed an application for license in competition with an application by Pacific Power & Light Co. (PP&L) for relicensing of its Merwin Project No. 935. CCJOA has petitioned for an order declaring that it is the preferred applicant for relicensing of the Merwin Project. In addition, CCJOA has petitioned to intervene in this docket and has moved that we consolidate its petition for declaratory order with this proceeding. PP&L, on the other hand, has filed motions seeking to postpone action in Docket No. EL78-43 indefinitely, pending resolution in the relicensing proceeding, after evidentiary hearings, of whether CCJOA has a preference over PP&L. Both PP&L's and CCJOA's pleadings seek relief that would go

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1/ 16 U.S.C. §800(a) (1976).

2/ 16 U.S.C. §796(7) (1976). Of course, if the preference does apply for a "municipality", it also applies for a state. See section 7(a) of the Act.

3/ 16 U.S.C. §808(a) (1976).

4/ See section 8 of the Act, 16 U.S.C. §801 (1976).

beyond the scope of the instant proceeding.

In this docket, we are faced with resolution of a purely legal issue, a question of statutory construction which in no way hinges upon the facts of a particular case. In this proceeding, we are not concerned with whether any particular applicant is a "municipality"; nor are we addressing whether any particular applicant's plans are (or within a reasonable time are made) as well adapted as another's are to "conserve and utilize in the public interest the water resources of the region." Those are the kinds of questions implicit in the pleadings of CCJOA and PP&L.

Our inquiry here is solely-- assuming a particular competing applicant on relicensing is a "municipality", and assuming its plans are or are made equally well adapted as those of a non-municipal "original licensee"--whether that municipality has a preference over that non-municipality. This is the sort of generic issue, with potential effects on a broad range of persons and proceedings, which is particularly well-suited to decision in a proceeding for a declaratory order. Even if we should decide here that the section 7(a) preference does apply against an "original licensee" in relicensing proceedings, that determination would not foreclose either CCJOA or PP&L from addressing in the proceeding for relicensing of the Merwin Project the particular circumstances of CCJOA, PP&L, and the Merwin Project, and whether CCJOA would be entitled to such a preference. Those are matters which may well involve material factual disputes between CCJOA and PP&L and which, in any event, would not aid our determination of the issue of law before us in this docket. For this reason, we will deny the motions of both CCJOA and PP&L. Each will have the opportunity to present its arguments on the legal question in this proceeding as an intervenor. In addition--assuming for the sake of argument that we decide the section 7(a) preference applies in relicensing cases--CCJOA and PP&L may litigate in the relicensing proceeding on the Merwin Project the separate, specific question of whether CCJOA is entitled to such a preference. 5/

5/ We note also that this proceeding will not resolve whether either Bountiful or Santa Clara would be entitled to a section 7(a) preference, if there is one. Those issues must be resolved in the two separate relicensing proceedings in which they are respectively parties.

Participation of the intervenors shall be limited to matters affecting asserted rights and interests specifically set forth in their petitions to intervene. The admission of the intervenors shall not be construed as recognition by the Commission that they might be aggrieved by any order entered in this proceeding.

(B) The parties to this proceeding and Commission staff counsel may file initial briefs no later than 60 days from the date of this order, and reply briefs no later than 30 days from the last day for filing initial briefs, addressing these issues:

(1) Does the preference provided in section 7(a) of the Act for a state or a municipality apply in a relicensing proceeding under section 15 of the Act against an original licensee that is neither a state nor a municipality?

(2) Is a licensee which holds the original license for a project as an assignee or a successor under section 8 of the Act an "original licensee" within the meaning of section 15 of the Act?

(C) The motion filed by Clark-Cowlitz Joint Operating Agency to consolidate with this proceeding the question of whether it has a preference over Pacific Power & Light Co. for relicensing of the Merwin Project is denied. The motion of Pacific Power & Light Co. to postpone action in this proceeding is denied.

By the Commission.

(S E A L)

Lois D. Cashell,
Acting Secretary.

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D. C. 20426
EQUAL OPPORTUNITY EMPLOYER

POSTAGE AND FEES PAID
FEDERAL ENERGY REGULATORY COMMISSION
FERC 22
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3940	LEWISVILLE DAM	DENTON CITY OF	MOP		2000	TX	TRINITY RIVER	03/27/1984	02/28/2034
4021	LAKE TAHOMA	SARANAC ENERGY CORPORATION	NON	240	0	NC	BUCK CREEK	07/14/1982	06/30/2022
4025	SHINGLE CREEK	BOYLE JOHN H	NON		110	ID	N FORK AND S FORK OF SHINGLE CREEK	09/30/1981	08/31/2031
4117	COLEBROOK	METROPOLITAN DIST OF HARTFORD	MOP		2500	CT	WEST BRANCH FARMINGTON RIVER	03/29/1984	02/28/2034
4129	RIO BRAVO	OLCESE WATER DISTRICT	MOP		7120	CA	KERN RIVER	09/20/1983	08/31/2033
4282	LOWELL TANNERY	PUMPKIN HILL POWER COMPANY	NON		875	ME	PASSADUMKEAG RIVER	10/31/1983	09/30/2023
4306	MISSISSIPPI LOCK & DAM NO. 2	HIBBING CITY OF	MOP		4000	MN	MISSISSIPPI RIVER	07/11/1983	06/30/2033
4316	BLUE VALLEY RANCH	TRANS MOUNTAIN HYDRO CORPORATION	NON		130	CO	BLUE RIVER	07/06/1983	06/30/2023
4354	PHILADELPHIA	LONG LAKE ENERGY CORP	MON		3000	NY	INDIAN RIVER	02/17/1983	01/31/2023
4362	RIVERDALE	INMAN MILLS	NON		1240	SC	ENOREE RIVER	09/29/1982	08/31/2012
4428	WALDEN	WALDEN POWER CORPORATION	MON		2824	NY	WALLKILL RIVER	06/15/1982	05/31/2022
4451	LOWER GREAT FALLS	SOMERSWORTH HYDROPOWER I	NON		1289	NH	SALMON FALLS RIVER	04/22/1982	04/30/2022
4506	BLOOMINGTON	WESTERNPORT CITY OF	NOP		13850	MD	NORTH BRANCH POTOMAC		
4597	PINE VIEW	WEBER-BOX ELDER CONS DIST	MOP		1800	UT	OGDEN RIVER	03/16/1984	02/28/2034
4639	CHRISTINE FALLS	LONG LAKE ENERGY CORP	NON		725	NY	SACANDAGA RIVER	10/18/1983	09/30/2023
4641	DANNER-FENSTER	DANNER GEORGE & FENSTER JAMES P	NON	12	12	AK		08/28/1981	07/31/2031
4718	COCHECO FALLS	WEBSTER JOHN H	NON		700	NH	COCHECO RIVER	12/08/1982	11/30/2023
4749	MILL CREEK	WALKER LARRY S	NON		1860	WA	POTHOLES EAST CANAL	10/05/1983	09/30/2033
4750	ELTOPIA BRANCH CANAL	ENERGENICS SYSTEMS INC	NON		682	WA	ELTOPIA BRANCH CANAL	09/09/1983	08/31/2033
4784	PREJEPSCOT	ANDROSCOGGIN WATER POWER COMPANY	MON	2500[17]	10025	ME	ANDROSCOGGIN RIVER	09/16/1982	08/31/2027
4796	GLEN PARK	NIAGARA MOHAWK POWER CORP	MON	0	15490	NY	BLACK RIVER	12/29/1982	11/30/2032
4800	MOON LAKE	BOUNTIFUL CITY OF	MOP		4725	UT	LAKE FORK RIVER	06/10/1983	05/31/2033
4881	BARBER DAM	ADA CO BOISE CITY OF & BLOOM A L	MON		4140	ID	BOISE RIVER	12/23/1983	11/30/2023
5044	SIBLEY MILL	GRANITEVILLE COMPANY	MON	2475		GA	AUGUSTA CANAL - SAVANNAH RIVER	04/15/1983	03/31/2003
5073	BENTON FALLS	WHITMAN EVERETTE E	MON		3400	ME	SEBASTICOOK RIVER	03/08/1984	02/28/2034
5089	FELT	FALL RIVER RURAL ELEC COOP INC	MON	1870[18]	6025	ID	TETON RIVER	09/0[illegible]/198[illegible]	08/31/2023
5124	NORTH BRANCH NO.3	WASHINGTON ELECTRIC COOPERATIVE INC	NON		1000	VT	WINOOSKI RIVER	11/2[illegible]/198[illegible]	10/30/2022
5227	HORSE CREEK	TIFT ROBERT RAYMOND	NON		1200	CA	HORSE CREEK	02/06/1984	01/31/2034
5261	NEWBURY	NEWSBURY HYDRO COMPANY	NON		334	VT	WELLS RIVER	09/08/1983	08/31/2023
5283	CARGILL FALLS	HALE MANUFACTURING COMPANY	NON		1360	CT	QUINEBAUG RIVER	08/29/1983	07/31/2023
5297	MANVILLE	FORTE BROTHERS INC	NON		1240	RI	BLACKSTONE RIVER	08/29/1983	07/31/2023
5312	WESTFIR	J R FERGUSON & ASSOCIATES	MON		3000	OR	N FORK MIDDLE FORK WILLAMETTE RIVER	03/03/1983	02/28/2033
5313	DEWEYS MILLS	HYDRO ENERGIES CORPORATION	MON		1840	VT	OTTAUQUECHEE RIVER	01/20/1983	12/31/2032

5334	FORD LAKE	JOINT YPSILANTI RECREATION ORGAN	MON	1920		MI	HURON RIVER	10/07/1983	09/30/2003
5362	LOWER MOUSAM	KENNEBUNK LIGHT AND POWER DISTRICT	NOP	0	375	ME	MOUSAM RIVER	04/16/1982	03/31/2022
				150	0		MOUSAM RIVER		
				300	0		MOUSAM RIVER		
				150	0		MOUSAM RIVER		
5596	BEDFORD	BEDFORD, CITY OF	MOP	1090	4800	VA	JAMES RIVER	05/20/1983	04/30/2023
5598	MILTON	EAST COAST ENGINEERING	NON		600	NH	SALMON FALLS RIVER	12/30/1982	11/30/2022
5687	WEARE RESERVOIR	EAST COAST ENGINEERING	NON		114	NH	PISCATAQUOG RIVER	01/28/1983	12/31/2022
5702	BARNET	BARNET HYDRO COMPANY	NON		530	VT	STEVENS RIVER	08/06/1982	07/31/2032
5728	SANDY HOLLOW	SANDY HOLLOW HYDRO ASSOCIATES	NON		575	NY	INDIAN RIVER	03/22/1983	02/28/2023
5765	MADERA CANAL MILE 24.2 (DRY CREEK)	MADERA IRRIGATION DISTRICT	NOP		275	CA	MADERA CANAL	09/08/1983	08/31/2033
5867	ALICE FALLS	LONG LAKE ENERGY CORP	MON		1960	NY	AUSABLE RIVER	10/05/1983	09/30/2023
5891	OPAL SPRINGS	DESCHUTES VALLEY WATER DISTRICT	MOP		4900	OR	CROOKED RIVER	11/02/1982	10/31/2032
5906	NORTH CANAL	NORTH CANAL WATERWORKS	MON	2520		MA	NORTH CANAL	08/11/1982	07/31/2002
5944	MORETOWN NO. 8	POCANTICO DEVELOPMENT ASSOC INC	NON		800	VT	MAD RIVER	12/07/1982	11/30/2023
5946	LOWELL ATLANTIC	MASSACHUSETTS HYDRO ASSOCIATES	MON	700		MA	LAWRENCE CANAL	12/30/1983	11/30/2003
5983	LOST CREEK	MORGAN CITY CORPORATION	NOP		600	UT	LOST CREEK	10/07/1983	09/30/2033
6058	HAILESBORO NO. 4	HYDRO DEVELOPMENT GROUP INC	MON	1490		NY	OSWEGATCHIE RIVER	01/19/1983	12/31/2002
6059	FOWLER NO. 7	HYDRO DEVELOPMENT GROUP INC	MON	900		NY	OSWEGATCHIE RIVER	11/29/1982	10/31/2002
6115	PYRITES	HYDRO DEVELOPMENT GROUP INC	MON	1200	6000	NY	GRASS RIVER	09/23/1983	08/31/2023
6120	CAMP CREEK	MCDOWELL FOREST PRODUCTS INC	NON		990	CA	CAMP CREEK	12/29/1982	11/30/2022
6220	TOKUL CREEK	WEYERHAEUSER CO	MON		3500	WA	TOKUL CREEK	03/29/1984	02/28/2034
6228	CASCADE DAM	CASCADE CHARTER TOWNSHIP	NOP		1000	MI	THORNAPPLE RIVER	01/20/1984	12/31/2024
6240	WATSON DAM	WEBSTER JOHN M	NON		182	NH	COCHECO RIVER	09/08/1983	08/31/2023
6418	A.J. ALLEN	BURFORD JUDITH A	NON		19	CO	EAST BRUSH CREEK	08/10/1983	07/31/2003
6440	LAKEPORT	LAKEPORT HYDROELECTRIC ASSOCIATES	NON		600	NH	WINNEPESAUKEE RIVER	09/08/1983	08/31/2023
6470	WINOOSKI NO. 8	WINOOSKI HYDROELECTRIC CO	NON		550	VT	WINOOSKI RIVER	08/29/1983	07/31/2023
6687	RESERVOIR NO.3	EL DORADO IRRIGATION DISTRICT	NOP		950	CA	EL DORADO MAIN NO.2	07/12/1983	06/30/2033
6916	STRONTIA SPRINGS	DENVER CITY & COUNTY OF	NOP		950	CO	SOUTH PLATTE RIVER	01/13/1984	12/31/2024
6951	TALLASSEE SHOALS HYDRO	OGLETHORPE POWER CORP	MON		1900	GA	MIDDLE OCONEE RIVER	10/24/1983	09/30/2023
7000	NEWTON FALLS	NEWTON FALLS PAPER MILL INC	MON		680	NY	OSWEGATCHIE RIVER	02/28/1984	01/31/2004
					1540		OSWEGATCHIE RIVER		
7281	LATERAL 6.2 HYDROELECTRIC	MADERA IRRIGATION DISTRICT	NOP		850	CA	MADERA CANAL	12/28/1983	11/30/2033

Lª - Existing Capacity Being Taken Out Of Service

Interventions

In addition to CCJOA and PP&L, the following entities have petitioned to intervene in this proceeding: the American Public Power Association, Carolina Power & Light Co., Georgia Power Co., the "Hydroelectric Utility Company Group" (an informal collection of 31 investor-owned electric utility companies that are licensees or hold interests in licensees), the International Brotherhood of Electrical Workers, The Montana Power Co., Pacific Gas & Electric Co., Utah Power & Light Co., and Wisconsin Power & Light Co. 6/ The California Public Utilities Commission filed a notice of intervention. All have shown adequate reasons to be permitted to intervene.

Briefing and Schedules

The primary issue in this proceeding is whether the section 7(a) preference for states and municipalities applies against a non-public "original licensee" in a relicensing proceeding. The secondary issue is whether a licensee holding its license as an assignee or successor in interest of an earlier licensee constitutes an "original licensee" under section 15. These questions are solely matters of law, not fact, and thus do not require an evidentiary hearing. Accordingly, the issues will be resolved after receiving briefs from the parties. We will allow 60 days for initial briefs. (Parties who have already filed their legal arguments need not refile.) Reply briefs will be due 30 days later.

The Commission orders:

(A) The following entities are permitted to intervene in this proceeding, subject to the Commission's rules and regulations under the Federal Power Act: the American Public Power Association; the California Public Utilities Commission; Carolina Power & Light Co., Clark-Cowlitz Joint Operating Agency; Georgia Power Co.; the Hydroelectric Utility Company Group; the International Brotherhood of Electrical Workers; The Montana Power Co.; Pacific Gas & Electric Co.; Pacific Power & Light Co.; Utah Power & Light Co.; and Wisconsin Power & Light Co.

6/ Although Santa Clara also has petitioned to intervene, it is already a party, since it filed one of the petitions that initiated this proceeding.

Question 9. Section 7(a) of the Federal Power Act and H.R. 5299 contain provisions that permit state or municipal applicants a "right to cure" their applications to make them "equally well adapted" to meet the public interest. Please describe how the Commission presently accords this "right to cure" under Section 7(a), including a description of the time within which the "right" exists and whether the Commission gives timely notice to the state or municipal applicant regarding what such applicant must do in order to make an application filed by such an entity "equally well adapted."

Answer 9. Section 7(a) of the Federal Power Act ("Act"), 16 U.S.C. § 800(a), provides that the Commission shall in certain circumstances give preference to applications by states and municipalities, provided their plans are deemed by the Commission equally well adapted, "or shall within a reasonable time to be fixed by the Commission, be made equally well adapted," to conserve and utilize in the public interest the water resources of the region. The Commission has ruled that this provision of Section 7(a) of the Act does not apply in cases of competition against an existing licensee for a new license. Pacific Power & Light Co., et al., 25 FERC ¶61,052 (1983) ("Merwin"). (The term "new license" refers to a license issued after the expiration of an outstanding license.) H.R. 4402 (Shelby bill) would confirm the Commission's ruling and amend Section 7(a) in that regard by removing the reference to relicensing under Section 15 of the Act. On the other hand, H.R. 5299 (Ottinger bill) would grant a preference to state and municipal relicensing applications if their plans are equally well adapted or will, within a reasonable time to be fixed by the Commission, be made equally well adapted to serve the public interest. H.R. 5416 (Gore bill) would extend to cooperatives and associations of cooperatives whatever treatment Section 7(a) accords to states and municipalities, but would not otherwise amend Section 7(a) of the Act or affect the Commission's interpretation of that section in Merwin.

The Commission concluded in the Merwin case that a state's or municipality's right to make the plans in its preliminary permit or original license application equally well adapted must be exercised before the Commission passes judgment on the competing plans. Once judgment has been passed, the state or municipality only has an opportunity to cure those deficiencies which can be remedied through the imposition of license conditions. 25 FERC ¶61,052 at 61,191.

In Merwin, the Commission also set forth its interpretation of wh minimum opportunity the law requires to be given to states and municipalities to cure the plans in their preliminary permit or original license application or in their new (non-original) license applicatio if the existing licensee is not competing in the relicensing proceedi The Commission's regulations currently provide states and municipalit an additional opportunity to match non-municipal competitors' applications for preliminary permit and original license. 18 C.F.R. § 4.33(g)(4) provides that in such cases "the Commission will inform the municipality or state of the specific reasons why its plans are not as well adapted and afford a reasonable period of time for the municipality or state to render its plans at least as well adapted... ." As was noted in Merwin, "[p]lans associated with proposed hydroelectric development involve infinitely more possibilities than plans associated with existing development wherein adversary applicants propose to continue to operate and maintain the same project works." 25 FERC ¶61,052 at 61,221-22. For the purposes of preliminary permit competition, the Commission has interpreted "a reasonable period of time" to be 30 days. On the date it decides that the non-municipal plan is superior, the Commission sends the state or municipality a letter stating the specific reason for its finding and giving the state or municipality 30 days to match the superior plan. Arkansas Valley Electric Cooperative, et al., 13 FERC ¶61,048 (1980) and 13 FERC ¶61,171 (1980).

Question 10. Please explain how the Commission reviews plans filed by applicants in relicensing cases under the requirements of sections 7(a) and 10(a) of the Federal Power Act in both contested as well as uncontested cases. By what environmental, utilization and development standards does the Commission decide, in contested cases, whether one plan or another is "best adapted" to serve the public interest? Please explain in detail how the Commission considers impact on the environment of any plan filed in a relicensing case, including uncontested cases.

Answer 10. Uncontested relicense applications are reviewed with respect to environmental impacts, safety, and water resource utilization to determine if continued operation of these projects would be in the best public interest. The review consists of: (1) an assessment of the impacts of past and proposed operation and mitigative proposals in consideration of agency comments; (2) an evaluation of the design of the project structures for safety and adequacy determinations; (3) an assessment of the physical condition of the project works with regard to suitability for continued operation; (4) an assessment of the effectiveness of recreation and public access safety features; (5) a determination of optimal power installation and operation; (6) an evaluation of reservoir operation with respect to power production, recreation, fish and wildlife, water supply, flood control, and other beneficial purposes; (7) a reappraisal of minimum flow requirements, fish protection measures, and fish passage facilities; and (8) a determination of whether Federal takeover should be recommended.

In contested relicensing cases, the competing applications are reviewed as above but with some additional considerations. The applicants' plans are compared on the basis of: (1) their expected environmental impacts; (2) proposals to mitigate adverse project impacts; (3) proposals to enhance environmental resources; and (4) differences in installation and operation for power production. A determination is also made of the cost to the original licensee of obtaining an equivalent amount of power from an alternative source if it were to lose the project. The relative cost of the project to each applicant's consumers is also assessed.

Question 11. Does section 10(a) of the Federal Power Act contain substantive standards by which plans filed in relicensing cases under section 7(a) are reviewed to determine whether they are "best adapted" to serve the public interest? If so, are these standards different from those applied by the Commission under section 7(a) or additive to them? Please explain how the Commission applies section 10(a) in contested and uncontested relicensing cases.

Answer 11. Section 10(a) sets forth a set of standards to be met for all licenses issued under Part I of the Federal Power Act, while section 7(a) sets forth the standard for selecting a licensee when plans are competing. The section 10(a) standard, best adapted to a comprehensive plan for improving or developing a waterway, is the standard applied under Section 7(a). Pacific Power & Light Co., et al., 25 FERC ¶61,052 at 61,187 (1983).

The Commission's application of section 10(a) for both contested and uncontested cases is based upon a review of the entire record before it, and its decision must be supported by substantial evidence. The Commission's procedures provide for the development of a record in each case which includes consideration of all aspects of beneficial public uses of a waterway or waterways involved.

First, potential applicants are required by the Commission's regulations to assemble supporting data and to perform necessary studies concerning engineering, economic, environmental, and other matters in support of their application. 18 C.F.R. Part 4. Consultation by these potential applicants with appropriate Federal, state, and local agencies is required in conducting studies and collecting data to prepare an acceptable application.

Once an application is filed, the Commission's staff reviews it for completeness and acceptability. When the application is accepted, the Commission requests comments from interested Federal, state, and local agencies, and issues a public notice. This notice provides the public with an opportunity to file protests, motions to intervene, and comments. The notice is published in the Federal Register and in newspapers in the vicinity of the project.

The Commission's staff then conducts its independent review and analysis, and provides the Commission with a record in sufficient detail for it to decide whether the proposed project is best adapted to a comprehensive plan for improving or developing a waterway.

When material facts are in dispute, the Commission may order an evidentiary hearing following the staff's review and analysis of issues raised in the application, agency or public comments, protests or motions to intervene.

Question 12. Please set forth the Commission's understanding of how H.R. 4402 would change the law relating to relicensing cases, and the manner in which the Commission handles these cases.

Answer 12. The Commission now handles relicensing cases in the following way. The Commission issues a public notice of projects under expiring licenses five years in advance of their expiration. (See 18 C.F.R. § 16.2.) Any applicant may compete for the new license. When acceptable applications for new license are filed, either by the existing licensee or by competitors, the Commission gives public notice; requests comments from interested Federal, state, or local agencies; and invites comments, protests, or motions to intervene from interested entities. (See 18 C.F.R. § 4.31(c).) The Commission staff conducts its own independent review and analysis, using available information and developing additional information that may be needed for a sufficient record. If neither the Commission nor any other Federal department or agency recommends takeover by the United States, and the Commission does not decide to issue a license for nonpower use, the Commission then decides whether to issue a new license to the existing licensee or to a competitor, if there is one, using the standards of Sections 7(a) and 10(a) of the Federal Power Act, 16 U.S.C. §§ 800(a) and 803(a), respectively.

H.R. 4402 (Shelby bill) addresses the relicensing provisions of the Federal Power Act. Section 2 of H.R. 4402 would amend Section 7(a) of the Act, 16 U.S.C. § 800(a), to provide that the municipal preference provision of that Section applies only to issuance of preliminary permits and original licenses, and not to new licenses issued on relicensing under Section 15(a) of the Act, § 808(a). (The term "new licenses" refers to licenses issued after the expiration of an outstanding license.) Section 3 of H.R. 4402 would amend Section 15(a) of the Act to clarify the process for the issuance of new licenses on the expiration of existing licenses. Basically, the amended Section 15(a) would provide that if the United States does not take over a project upon expiration of the existing license, the Commission shall issue a new license to the existing licensee unless the Commission determines that the project to be relicensed, as applied for, would not meet the standards prescribed in Section 10(a) of the Act, taking into account public benefits provided during the preceding license term. Section 3 would also address the matter of compensation to be paid to the existing licensee if a project should be licensed to a new licensee. The standard would be "just compensation" in an amount determined by the Commission "in accordance with due process of law."

In contrast to H.R. 4402, the other two bills, H.R. 5299 and H.R. 5416, propose a different approach. H.R. 5299 (Ottinger bill) would give a preference to states and municipalities in relicensing if their plans are, or within a reasonable time are made, equally well adapted as those of other competing applicants to serve the public interest. H.R. 5299 provides that in determining which plans are best adapted to serve the public interest, the Commission would consider (a) the plans of the applicants to develop, conserve, and utilize the water resources of the region, including plans for protection and enhancement of fish, wildlife, natural, cultural and recreational resources; (b) the economic impact of the issuance of a license to each of the competing applicants, including economic impact on ratepayers of each electric utility applicant; and (c) the electricity consumption efficiency improvement programs of each of the competing applicants, including past performance and future plans respecting such improvements. Additionally, H.R. 5299 would provide that an applicant for a new license, other than the existing licensee, may agree to pay to the existing licensee which is an electric utility applicant an amount greater than the amount specified in Section 14(a) of the Act, 16 U.S.C. § 807(a), which basically provides for payment of net investment, not to exceed fair value, plus severance damages. However, no specific standard or methodology for determining the amount of compensation is prescribed. The bill would also direct the Commission to consider the larger payment in determining the economic impact on the ratepayers of an electric utility applicant.

H.R. 5416 (Core bill) includes a statement of findings and purposes with respect to promoting competition in the electric utility industry. The bill would make various changes in the Act to include rural electrical cooperatives or associations of cooperatives within the preference given by Section 7(a) of the Act, 16 U.S.C. § 800(a), to states and municipalities in the issuance of preliminary permits and original licenses. Under the Commission's decision in Pacific Power & Light Co., et al., 25 FERC ¶61,052 (1983) ("Merwin"), the preference of Section 7(a) in favor of states and municipalities is inapplicable to relicensing proceedings in which licensees in possession of the project works are applicants (25 FERC ¶61,052 at p. 61,207).

H.R. 5416 also contains new provisions for antitrust review in relicensing proceedings by adding a new Section 15A to the Act. Under this amendment, the Commission would furnish to the Attorney General a copy of each application for a new license together with appropriate information, receive antitrust advice from the Attorney General, and hold hearings on request — all for the purpose of the Commission's conducting a broad inquiry and making a finding as to whether activities under the license would create or maintain a situation inconsistent with specified antitrust laws. The bill would also prescribe various procedures, including waiting periods, depending on the findings made by the Commission. Perhaps the most noteworthy of these procedures is the mandatory rejection under Section 4(d)(2) of any competing application for which an affirmative finding of a situation inconsistent with the antitrust laws is made, providing that there is a negative finding for at least one of the competing applications.

Question 12.a. Would the Commission still apply Section 7(a) standards in the review of competing plans?

Answer 12.a. Section 7(a) of the Federal Power Act, 16 U.S.C. § 800(a), provides:

> [i]n issuing preliminary permits hereunder or licenses where no preliminary permit has been issued and in issuing licenses to new licensees under section 15 hereof the Commission shall give preference to applications therefor by States and municipalities, provided the plans for the same are deemed by the Commission equally well adapted, or shall within a reasonable time to be fixed by the Commission be made equally well adapted, to conserve and utilize in the public interest the water resources of the region; and as between other applicants, the Commission may give preference to the applicant the plans of which it finds and determines are best adapted to develop, conserve, and utilize in the public interest the water resources of the region, if it be satisfied as to the ability of the applicant to carry out such plans.

The Commission has held that the municipal preference in Section 7(a) does not apply in cases of competition against an existing licensee for a new license. Pacific Power & Light Co., et al., 25 FERC ¶61,052 (1983) ("Merwin"). (The term "new license" refers to a license issued after the expiration of an outstanding license.) H.R. 4402 (Shelby bill) would amend Section 7(a) of the Act to confirm this holding. H.R. 5299 (Ottinger bill) would amend Section 7(a) to provide for preference to states and municipalities when their competing plans in relicensing proceedings are or will be made equally well adapted to serve the public interest. H.R. 5416 (Gore bill) would amend Section 7(a) to include cooperatives or associations of cooperatives in any preference accorded to states and municipalities.

Different results are obtained among the bills with respect to relicensing proceedings wherein the existing licensee is not a competitor for a new license. H.R. 5416 would not amend Section 7(a) except to extend to cooperatives and associations of cooperatives whatever treatment the subsection accords to states and municipalities. Therefore, it would not revise the Commission's ruling in the Merwin case that the municipal preference clause of Section 7(a) applies to competition for a new license where the existing licensee is not an applicant. 25 FERC ¶61,052 at 61,179. H.R. 4402 would amend Section 7(a) by limiting it to competition for original licenses. H.R. 5299 would provide a municipal preference in a new subsection 7(d)(3).

Question 12.b. Does the bill resolve the legal issue raised in the appeal of the Merwin Dam case (Clark-Cowlitz Joint Operating Agency v. FERC) regarding the breadth of review of competing plans by the Commission?

Answer 12.b. In its decision in the Merwin case, the Commission found that under Sections 7(a) and 10(a) of the Federal Power Act, 16 U.S.C. §§ 800(a), 803(a), the "selections of (a) the licensee, and (b) the best adapted comprehensive plan, are to be based on the same public interest standard....Accordingly, the expressed scope of the Section 7(a) public interest inquiry is subsumed within the broader scope of the Section 10(a) public interest inquiry." Pacific Power & Light Co., et al., 25 FERC ¶61,052 at p. 61,187 (1983) (emphasis omitted). H.R. 4402 (Shelby bill) would provide for a Section 10(a) standard in issuing new licenses to existing licensees, but would also require the Commission to take into account public benefits provided during the preceding license term.

H.R. 4402 appears to apply prospectively from enactment; it would therefore not affect the Merwin appeal. With respect to the applicability of the municipal preference against existing licensees in relicensing cases arising after enactment, H.R. 4402 should resolve that question, as should H.R. 5299 (Ottinger bill) (see Answers 9., 12.a.). H.R. 5416 (Gore bill) does not address the point; rather, it amends Section 7(a) of the Act so as to extend to cooperatives and associations of cooperatives whatever treatment the subsection accords to states and municipalities (see Answer 12.).

Question 12.c. If two competing plans filed by applicants were deemed to be "equally well adapted," how would the Commission decide to whom to issue the new license?

Answer 12.c. If an existing licensee's plans meet the standards of H.R. 4402 (Shelby bill) for issuance of a new license, then it appears that the new license will be issued to that licensee if there is no takeover by the United States. If the competition for new license is between applicants, neither of which is the existing licensee, there is no Federal takeover, and the applicants' plans are equally well adapted under standards for a new license, then it appears that the basis for selection under H.R. 4402 is left to the Commission's discretion.

Under H.R. 5299 (Ottinger bill), a different result would occur. If in competition for a new license two competing plans filed by applicants were deemed "equally well adapted," and one of the applicants is a state or municipality, then the state or municipality would have a preference if there is no takeover by the United States. However, if competing plans are deemed "equally well adapted," and none of the competing applicants or all of the competing applicants with equally well adapted plans are states or municipalities, then it appears the basis for selection under H.R. 5299 is left to the Commission's discretion.

H.R. 5416 (Gore bill) would amend Section 7(a) of the Federal Power Act, 16 U.S.C. § 800(a), to extend its application to cooperatives and associations of cooperatives. (see Answers 9. and 12.a.). The Commission has held that the municipal preference provision of Section 7(a) is inapplicable to relicensing proceedings in which licensees in possession of the project works are applicants (see Answer 12.a.); it thus appears that if competing plans are deemed "equally well adapted," there would be no Section 7(a) preference if one of the applicants is the existing licensee, and thus the basis for selection under H.R. 5416 is left to the Commission's discretion if there is no takeover by the United States. If the existing licensee is not one of the applicants, and one of the competing applicants is a state, municipality, cooperative, or association of cooperatives, then that state, municipality, cooperative, or association of cooperatives would have a preference; however, if two of the competing applicants are a state, municipality, cooperative, or association of cooperatives, the choice between such applicants is left to the discretion of the Commission.

Question 12.d. How would the Commission determine the amount of compensation established under H.R. 4402 in any individual case?

Answer 12.d. Currently there are provisions in the Federal Power Act that relate to eminent domain proceedings (See Sections 14 and 21, 16 U.S.C. § 807 and 814, respectively). The proviso at the end of Section 14(a) specifically refers to payment of just compensation. However, it has been traditionally a function of the courts rather than the Commission to determine just compensation in such cases. If H.R. 4402 (Shelby bill) is enacted in its present form and a Commission determination of just compensation becomes necessary, the Commission will need to decide how to proceed.

H.R. 5416 (Gore bill) would not modifiy the existing provision in Sections 14(a) and 15(a) of the Act, 16 U.S.C. §§ 807(a) and 808(a), respectively, with regard to the amount of compensation to be paid to the existing licensee if a project should be relicensed to a new licensee. H.R. 5299 (Ottinger bill) would modify Section 15(a) to provide that an applicant may agree to pay to the existing licensee which is an electric utility applicant an amount greater than the amount specified in Section 14 (a) of the Act (See 16 U.S.C. § 807(a)).

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

June 4, 1985

Honorable J. Bennett Johnston
Ranking Minority Member
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Senator Johnston:

In response to your request to Chairman O'Connor that the Commission analyze and respond to questions on pending hydroelectric relicensing legislation, I am submitting the enclosed staff comments on S. 403, S. 426/H.R. 44, H.R. 1815, and H.R. 1959. These comments do not necessarily represent the views of the Commission as a whole or any Commissioner.

I hope these comments will be helpful to you. I will be available to discuss this legislation with you should you desire.

Sincerely,

Christopher J. Warner

Christopher J. Warner
Associate General Counsel
Legislation, Regulation and
Congressional Affairs

Enclosure

Enclosure

Existing Law

1. Please provide a short synopsis of existing law under the Federal Power Act with respect to: (a) the operation and existence of a municipal relicensing preference; and (b) how compensation is determined in the event of project takeover.

1(a). The Commission has held that the municipal preference in Section 7(a) of the Federal Power Act (FPA) does not apply in cases of competition against an existing licensee for a new license. In such cases, the Commission will choose between such competitors on the basis of the "best adapted" project under the comprehensive development standard of Section 10(a) of the FPA as incorporated in the "as between other applicants" clause of Section 7(a). Pacific Power & Light Company, et al., 25 FERC ¶ 61,052 (1983) ("Merwin"). No provision exists to break a tie should the Commission find the competitors' plans equally well adapted.

In competition not involving the existing licensee, the Commission chooses between the competitors on the basis of which competitor's plans are "best adapted" under the standard set forth in Section 10(a). If a municipal applicant's plans are deemed equally as well adapted as those of other non-municipal competitors, the preference afforded under Section 7(a) of the FPA operates to break the tie in favor of the municipal applicant. If a non-municipal applicant's plans are better adapted, Section 7(a) operates to give the municipal competitor an opportunity to make its plans equally well adapted. In Merwin, the Commission held that a municipality's right to make its plans equally well adapted must be exercised before the Commission passes judgment on the competing plans. Once judgment has been passed, the municipality only has an opportunity to cure those deficiencies that can be remedied through the imposition of license conditions.

1(b). In the event that a new license is issued to someone other than the existing licensee, Section 15(a) of the FPA currently requires the new licensee to pay the existing licensee a statutorily defined compensation of net investment plus severance damages as set forth in Section 14. That compensation essentially amounts to depreciated original cost plus improvements plus damages to property as a result of severance of the project from the existing licensee's system. The Commission has never had the opportunity to define severance damages. In Merwin, the Administrative Law Judge ruled that severance damages were limited to damages to the existing licensee's property not taken as part of the project. The existing licensee in that case maintained that its severance damages would be the cost of providing substitute power to replace power lost as a result of the takeover. Inasmuch as the Commission in Merwin issued the new license to the existing licensee, the question of compensation for takeover did not arise.

S.403

1. How would the four factors identified in section 3(b) of S.403 be applied by the Commission? Would they be equally weighted? For example, if an applicant strongly satisfied one of the factors but was deficient in the other three, could it nevertheless receive the new license over a competing applicant who satisfied each of the four factors in some minimal respect?

Under the current law, the merits of competing proposals are judged by the Section 10(a) standard of which proposal is best adapted to comprehensive development of the waterway for beneficial public purposes. S. 403 establishes a new standard of "better adapted to serve the public interest." The four items included thereunder would be required subjects of Commission consideration in comparing the public interest impacts of competing applications. The language of item (1), "the plans of each applicant to develop, conserve, and utilize in the public interest the water resources of the region," approximates very closely the language of the current Section 10(a) comprehensive development standard. This Section 10(a) mandate is very broad and includes a consideration of factors affecting the public interest in its broadest sense. With respect to the remaining three items specified as part of public interest test, all of these could be encompassed under the current Section 10(a) standard. All three remaining items, economic impact on customers served by each applicant, applicant's ability to operate and maintain the project and the need for power, were aspects of the Section 10(a) standard considered by the Commission in the Merwin proceeding.

It would thus appear that the current scope of the Commission's comparison of competing applications under Section 10(a) would not be measurably altered by these four specified factors. The fact that Section 10(a) is not specifically incorporated therein but rather paraphrased under item (1) may give rise to some debate regarding to what extent the substantial body of existing precedent regarding Section 10(a) would apply. Furthermore, having specified some elements of the public interest potentially affected in relicensing and having omitted others, questions will arise as to the weight that should be ascribed to any one item in reaching an ultimate balanced decision. It is not clear from the proposed bill if one of the specified public interest factors under items (2)-(4) should take on more importance than a factor arising under the general langauge of item (1). Under the current Section 10(a) mandate, the Commission has the discretion to attribute appropriate weight to any one public interest factor in light of the circumstances of the particular case before it.

S. 426/H.R. 44

1. How would the Commission apply the amendment to section 15(a) of the Federal Power Act made by section 3(3) of S.426? Specifically, would there be any problem in "taking into account public benefits provided during the preceding license term . . ." for purposes of the licensing standards of section 10(a) of the Federal Power Act, given the fact that section 10(a) speaks solely to a prospective standard (i.e., section 10(a) provides that the project shall be one that "will be best adapted to a comprehensive plan for improving or developing . . ." the waterway in question.)?

Under the current Section 10(a) standard for comparing competing applications for a new license, the Commission may look at the performance of an existing licensee over the term of its license to the extent that performance reflects on its ability or fitness to serve as a licensee in the future. In Merwin, the Commission considered the existing licensee's record as a "model corporate citizen, including its efforts to assist recreation, flood control, and fish and wildlife conservation. Such demonstrated performance serves as an indication to the Commission of the existing licensee's likely future performance. The reference in S. 426 to past "benefits" in considering whether an existing licensee's plans for future operation of the project are best adapted is consistent, therefore, with the Commission's existing practice.

2. How would the Commission calculate the "just compensation" owed to the existing licensee upon project takeover? Would just compensation be equal to fair market value? If so, how would fair market value be calculated given the fact that a licensee does not own the value of falling water at a project?

S. 426 would substitute for the statutory compensation currently set by the FPA "just compensation in an amount that the Commission shall determine in accordance with due process of law." With no further direction in the language of the bill, the Commission would look to legislative history to determine congressional intent and to legal precedent for interpretations of just compensation in situations similar to the loss of a hydroelectric project. The possible interpretations range from replacement value, i.e., the cost to the existing licensee to construct a facility that would generate an equivalent amount of power, to a minimal amount such as net investment based on the theory that the facility has little value to the existing licensee once the license to operate it has expired. Without further direction in the legislative history, the Commission could refer to relevant Federal and state law governing eminent domain.

H.R. 1815

1. How would the Commission interpret the phrase "taking into account the need to maintain and enhance diversity within the electric industry" for purposes of administering new section 7(d)(1) of the Federal Power Act (as added by section 2(b) of H.R.1815)?

The need "to maintain and enhance diversity within the electric utility industry," as incorporated in the proposed new Section 7(d)(1) of the FPA, would have to be interpreted by the Commission on the basis of the declaration of policy apparently intended to be made in this legislation. Under an interpretation based on the plain meaning of the words, this phrase may require the Commission to award licenses based on the relative market share of the applicant in relevant electric markets, rather than on the applicant's fitness or operational capability. There is no provision currently in Part I of the FPA adopting this policy except to the extent that antitrust considerations under Section 10(h) or municipal preference under Section 7(a) operate to diversify the current make-up of the electric utility industry.

2. How would the Commission apply the two factors set out in new section 7(d)(1)?

Proposed Section 7(d)(1) retains the comprehensive development standard of Section 10(a) currently utilized by the Commission. It directs consideration of all relevant matters including items (A) and (B).

Item (A) in part paraphrases the current Section 10(a) standard and specifically adds the ability of "each applicant to achieve efficiency in the production and consumption of electric power. . . ." Although the ability of an applicant to operate a project is clearly a factor under the current Section 10(a) standard, the Commission has not had occasion to address the extent to which "efficiency in production and consumption of electric power" could be considered. To the extent public benefits can be identified in the manner in which a project is proposed to be operated, this would be a factor to consider and weigh with other public interest factors. A licensee's ability to promote and comply with Federal energy policies, including conservation, could also be considered. An exhaustive scrutiny of past or potential future compliance with regulatory requirements handled at the state or local level would, however, be inappropriate, encumber the progress of the proceeding and obscure the proper scope of the Federal concerns in relicensing.

Item (B) would require consideration of adverse impacts on fish, wildlife, natural, cultural and recreational resources; mitigation therefor; and public opportunities for use and benefit from such resources. All of these factors are currently considered by the Commission under Section 10(a).

H.R. 1815

3. How would the Commission interpret the directive of new section 7(d)(2) that the Commission shall not "deny a license to a competing applicant because the competing applicant has not previously operated a hydroelectric project"? Does this directive mean that a lack of previous operation may not be considered at all, or merely that a lack of previous operation cannot by itself preclude the granting of a license?

Further guidance in the proposed legislation or the legislative history would be required to interpret this phrase. Under one possible interpretation, based on the plain meaning of the words, this phrase would restrict the Commission's ability to review the operational capability of the competing applicant. Such a restriction could affect the Commission's ability to comply with licensing criteria relating to safety issues. Under the current law, the fact that a competing applicant has not previously operated a hydroelectric project would not, in and of itself, disqualify a competitor or affect a judgment on the merits of its plans. The Commission must, however, be assured of the ability of an applicant to carry out its proposed plans. Adequate planning and hiring of qualified personnel could establish this ability for an applicant who had not previously operated a hydroelectric project.

4. With respect to new sections 7(d)(3) and 7(d)(4), what is the state of existing law concerning project access and the sharing of information? Do these new sections raise any possibilities that one license applicant will gain an unfair advantage from the work of another?

The Commission has had little occasion in relicensing proceedings to address questions of access to a licensed project by a competing applicant or requiring the sharing of information with competing applicants. In one relicensing proceeding, the Commission granted an intervenor's motion for access to project works subject to advance notice to the licensee. City of Tacoma, Washington, 3 FERC ¶ 61,033 (1978). Safety and operational concerns relevant to each individual project should be considered in granting access to a licensed project. Other than the reasonable advance notice requirements, H.R. 1815 places no limits on the frequency or nature of access to a licensed project by a competing applicant.

There is currently no provision in the Commission regulations that would require existing licensees, in advance of filing an application for a new license, to share data, designs, studies and other information necessary to file a competing application for a new license. Once an application is filed, it is public information and available to competing applicants. Further information supporting the filed application may be obtained through petitioning for discovery under the Commission's general procedural rules. 18 C.F.R. Part 385. The Commission in Pacific Gas and Electric Co. v. City of Santa Clara, California, 56 FPC 1049 (1976), ordered an existing licensee to disclose historical information regarding the operation of its project to a competing applicant for a new license, but declined to require disclosure of certain studies that were considered the licensee's work product. In denying disclosure, the Commission noted that granting discovery of those studies would in effect compel the existing licensee to underwrite the efforts of its competitor.

The provisions of H.R. 1815 that would allow a competing applicant for new license unconditional access to project works and lands (with reasonable advance notice) and require the existing licensee to make available to a competing applicant all studies and information necessary to prepare a competing application (subject to reasonable compensation) would give competing applicants a substantial benefit not currently available to them to the same extent. To the extent that the legislation forces existing licensees to divulge their own work product, as opposed to historical or technical information they as project operators possess, it imposes a burden that will measurably disadvantage existing licensees in competing for new licenses.

5. How would the Commission interpret the provisions for "just and reasonable compensation" contained in new sections 7(f)(2) and 7(g)(2)? Do these provisions require or allow anything other than ordinary cost-of-service ratemaking under the just and reasonable standard of section 205(a) of the Federal Power Act?

Proposed Sections 7(f)(2) and 7(g)(2) relate to a capital contribution for increases in transmission capacity at bulk power facilities. The just and reasonable compensation provided for appears to be the equivalent of the standard provided for in Section 212(b) of the FPA.

The compensation provisions of proposed Sections 7(f)(1) and 7(g)(1) relate to rates for providing transmission services. These provisions do not appear to alter current Commission standards. Sections 205 and 206 of the FPA apply to rates for the sale of power from hydroelectric projects licensed under Part I of the Act. H.R. 1815 does not repeal or amend these provisions and thus the just and reasonable standards customarily utilized would continue to apply.

H.R. 1815

It should be noted that the transmission rate authority of the Commission under Section 205 of the FPA relates only to public utilities, which excludes municipal licensees. Proposed Section 7(f) refers to "any electric utility licensee" and could thereby arguably expand the Commission's current jurisdiction.

* Would a utility that was required to expand its transmission capacity be able to recover the cost of expansion solely from those entities for whom the expansion was made?

Under the FPA, the Commission has no authority to require the expansion of either generation or transmission capacity, with the exception of certain circumstances under Sections 202, 203, and 204 of the Public Utility Regulatory Policies Act (PURPA), amending FPA Sections 210, 211, and 212, which provide for authority to require expansion of transmission capacity but only upon a showing by the requesting party of the ability to pay the costs of expansion. Using PURPA as a guideline, it would appear that the costs would be recovered solely from the parties requesting expansion.

* Would the provision for mandatory transmission service contained in new Sections 7(f) and 7(g) affect the wheeling authority currently held by the Commission under Section 211 of the Federal Power Act?

Yes. The standards to be applied to order wheeling revise those set forth in Sections 211 and 212 of the FPA. It would appear that the Commission's wheeling authority would be increased under proposed Sections 7(f) and 7(g). For example, Section 211(c)(1) provides that the Commission shall not order mandatory transmission "unless the Commission determines that such order would reasonably preserve existing competitive relationships" (emphasis added). Proposed Section 7(f) would alter this finding to merely require a determination that the order would "increase competition in the bulk power supply market" (emphasis added). Section 211(a)(2)(B) currently authorizes the Commission to order wheeling that would, inter alia, "significantly promote the efficient use of facilities and resources" (emphasis added). Proposed Section 7(f) would delete the word "significantly" and thereby reduce the threshold showing required. Similarly, current Section 211(a)(1) authorizes wheeling that the Commission finds "is in the public interest" and meets a variety of other standards set forth therein. Proposed Section 7(f) would add "is otherwise in the public interest" as an independent basis for ordering wheeling. Section 212 of the FPA sets forth a number of additional constraints on the Commission's current authority to order mandatory transmission service that are not incorporated in proposed Sections 7(f) and 7(g).

6. Under the amendment to section 15(a) of the Federal Power Act made by section 3 of H.R. 1815, would the existing licensee have the right to demand project output in excess of 25 percent at a given instant provided that the average amount received did not exceed up to 25 percent of project output?

H.R. 1815 does not detail how the average 25 percent output of a project must be determined. It would appear that the existing licensee, under the proposed revision to Section 15(a) of the FPA, could negotiate an agreement with the new licensee whereby it would be entitled to demand more than 25 percent of output at any one instant as long as the output entitlement averaged 25 percent.

* How would the new licensee's "cost of power and energy from the project" be determined?

It is not clear exactly how H.R. 1815 intends the cost of power and energy provided an existing licensee to be calculated. Such power costs could be calculated on the basis of the cost of acquisition (net investment plus severance damages) of the project by the new licensee plus operation and maintenance costs, administrative costs and annual charges. Inasmuch as H.R. 1815 retains the net investment based compensation, power costs should be substantially less than avoided energy costs.

The proviso included in proposed new Section 15(a) would require that the provision of project output to an existing licensee not adversely affect the status of any bonds, notes or obligations of the new licensee. Apparently, to the extent that providing relatively inexpensive power to the existing licensee would "adversely affect" such obligations, the cost of power would have to be increased to a level that would not affect the status of these obligations.

* Would the receipt of project output by the former licensee after project takeover constitute a jurisdictional sale for resale of electricity under the Federal Power Act?

H.R. 1815

The amended section appears to contemplate an energy transaction, a sale by the new licensee to the former. It creates an energy entitlement of 25 percent of the output for sale at wholesale for the purpose of resale. To the extent the new licensee is a public utility as defined under Section 201 of the FPA, this transaction would be a jurisdictional sale.

7. How would the provision in section 5 of H.R.1815 for antitrust review change the Commission's existing duty to consider the antitrust laws in discharging its responsibilities?

The Commission currently has the duty in all licensing proceedings to prohibit, pursuant to Section 10(h) of the FPA, arrangements to restrain trade, fix prices or otherwise violate Federal antitrust laws. Proposed new Section 5 would not alter this fundamental obligation. It would alter the procedures on relicensing by requiring that all applications for new license b submitted to the Attorney General for advice regarding potential antitrust implications. The Commission would be required to the consider such advice in issuing and conditioning a new license. Currently, the Commission itself conducts such a review and addresses antitrust considerations that arise.

Question 8. Would the repeal of the hydroelectric licensin exemption program by section 6 of H.R. 1815 affect existing exem tions which have been granted pursuant to final agency action?

The repeal of Section 405(d) of PURPA would raise a number o questions relative to its effect on exemptions issued pursuant t final agency action. As a preliminary matter, it is clear that when a law conferring jurisdiction is repealed without reservation, pending cases fall with the law. Bruner v. United States 343 U.S. 112 (1952). It appears that repeal of the 5 MW exempt program would not disturb issued exemptions that are final for purposes of administrative action. Generally, in the absence o expressed legislative intent, statutes that affect antecedent rights are given prospective effect since they are ordinarily addressed to the future. Greene v. United States, 376 U.S. 149 (1964). However, without the inclusion of a savings clause or without express reserved authority it is unclear to what extent if any, the Commission would retain authority over issued exemp tions in order to enforce the standard terms and conditions set forth in 18 C.F.R. § 4.106 or to amend exemptions to accommodat future changes in circumstances.

H.R. 1815

It should also be noted that the repeal of the 5 MW exemption provision of PURPA would not disturb the provision for exempting conduit hydroelectric facilities set out in Section 213 of PURPA, 16 U.S.C. § 823(a).

H.R. 1959

1. How would the Commission apply the four licensing factors provided in new section 15(a)(2) of the Federal Power Act (as amended by section 3 of H.R.1959)?

The application of these four factors in the proposed new Section 15(a)(2) would be similar to the situation addressed with respect to S. 403.

Under current law, the Section 10(a) "best adapted to comprehensive development" standard governs the comparison of competing applications. H.R. 1959 would establish a new "best adapted to serve the public interest" standard. Four items included under that standard in 15(a)(2) would be required subjects of Commission consideration:

> Item (A) paraphrases the language of Section 10(a) and therefore would encompass a broad range of public interest factors.
>
> Item (B) with respect to fish, wildlife, natural, cultural and recreational resources encompasses considerations currently within the scope of Section 10(a).
>
> Item (C) specifically requires consideration of conservation programs of competing applicants, taking into account the policies and requirements of state regulatory authorities. The ability of an applicant to comply with Federal energy policies, including conservation, may currently be considered under Section 10(a). H.R. 1959 appears to extend such scrutiny to require consideration of compliance with state regulatory requirements. Such a provision could lead the Commission to become embroiled in disputes more properly handled at the state and local level and thereby encumber the progress of the proceeding and obscure the proper scope of Federal concerns on relicensing.
>
> Item (D) requires consideration of economic impacts on the customers of the competing applicants. Such an analysis is currently conducted under the broad mandate of Section 10(a).

No specific instruction is given as to the weight to be attributed to any of these factors. The Commission could use its discretion, as it currently does under Section 10(a), to give to each factor the weight it deems appropriate under the circumstances of the case before it.

H.R. 1959

2. As with the similar provision in S. 426, how would the Commission determine the "just compensation" provided for under new section 15(a)(4)?

The comments supplied with respect to S. 426 apply as well to the "just compensation" standard provided for by H.R. 1959.

H.R. 1959 would substitute for the statutory compensation currently set by the FPA "just compensation in an amount that the Commission shall determine in accordance with due process of law."

H.R. 1959 would substitute for the statutory compensation currently set by the FPA "just compensation in an amount that the Commission shall determine in accordance with due process of law." With no further direction in the language of the bill, the Commission would look to legislative history to determine congressional intent and to legal precedent for interpretations of just compensation in situations similar to the loss of a hydroelectric project. The possible interpretations range from replacement value, i.e., the cost to the existing licensee to construct a facility that would generate an equivalent amount of power, to a minimal amount such as net investment based on the theory that the facility has little value to the existing licensee once the license to operate it has expired. Without further direction in the legislative history, the Commission could refer to relevant Federal and state law governing eminent domain.

Question 3. How would the Commission apply the definition of "existing dam or diversion" contained in new section 210(k)(2)(A) of the Public Utility Regulatory Policies Act of 1978 (as added by section 4 of H.R.1959)? Are any problems raised by the fact that new sections 210(k)(2)(A)(i) and (ii) are stated in the conjunctive rather than the disjunctive?

Although the wording of the definition of "existing dam or diversion" contained in new Section 210(k)(2)(A) of PURPA as proposed to be added by Section 4 of H.R. 1959 is not entirely clear, it would appear to encompass: (1) dams and diversions which meet the commencement of construction deadline specified in the section but which are still under construction as of that date; and (2) dams and diversions in existence as of the commencement of construction deadline which do not require any new construction or enlargement of impoundment structures, except for new construction associated with repairs or reconstruction (so long as such repairs or reconstruction do not result in the enlargement of the impoundment structure), and except for the addition of flashboards or similar devices.

The fact that Sections 210(k)(2)(A)(i) and (ii) are stated in the conjunctive rather than the disjunctive would seem to eliminate dams and diversions which meet the commencement of construction deadline but which are still under construction as of that date since the completion of such dams and diversions would appear to run afoul of Section 210(k)(2)(A)(ii)'s prohibition on the "construction or enlargement of impoundment structures." However, the most reasonable interpretation of Section 210(k)(2)(A)(ii), which is utilized in the answer to the previous part of this question, would appear to be that it only applies to dams and diversions in existence as of the commencement of construction deadline and that it is not intended to prohibit dams and diversions still under construction as of that date.

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United States Senate
COMMITTEE ON
ENERGY AND NATURAL RESOURCES
WASHINGTON, DC 20510

May 3, 1985

Honorable Raymond J. O'Connor
Chairman
Federal Energy Regulatory Commission
825 North Capitol Street, N.E. Room 9000
Washington DC 20426

Dear Mr. Chairman:

Several bills concerning the relicensing of hydroelectric projects have recently been introduced in Congress. Two of these bills have been referred to the Committee on Energy and Natural Resources: S.403, introduced by myself, and S.426, introduced by Senator Wallop. In the House of Representatives, three additional relicensing bills have been introduced: H.R.1815, H.R.1959 and H.R.44, a bill identical to S.426.

In order to aid me and other members of the Committee, I would like the Federal Energy Regulatory Commission to analyze the ways in which each of these bills would change existing law and identify any administrative problems or ambiguities raised by such changes. The Subcommittee on Water and Power has scheduled a hearing on S.403 and S.426 for June 11. Thus, it would be helpful to receive the Commission's analysis by June 4.

I have enclosed a series of specific questions pertaining to each bill, but please feel free to address any additional aspects of the bills that bear comment. At this point, I am most interested in obtaining the Commission's view of how each bill would be administered if enacted into law and identification of any problems. However, I would be pleased to have your policy and technical recommendations at any time.

If your staff has any questions about this matter, please have them contact William Conway of the Minority Staff at 224-7149.

Sincerely,

J. Bennett Johnston
Ranking Minority Member

QUESTIONS FOR THE FEDERAL ENERGY REGULATORY COMMISSION
CONCERNING HYDROELECTRIC RELICENSING
From Senator J. Bennett Johnston

Existing Law

1. Please provide a short synopsis of existing law under the Federal Power Act with respect to: (a) the operation and existence of a municipal relicensing preference; and (b) how compensation is determined in the event of project takeover.

S.403

1. How would the four factors identified in section 3(b) of S.403 be applied by the Commission? Would they be equally weighted? For example, if an applicant strongly satisfied one of the factors but was deficient in the other three, could it nevertheless receive the new license over a competing applicant who satisfied each of the four factors in some minimal respect?

S.426/H.R.44

1. How would the Commission apply the amendment to section 15(a) of the Federal Power Act made by section 3(3) of S.426? Specifically, would there be any problem in "taking into account public benefits provided during the preceding license term..." for purposes of the licensing standards of section 10(a) of the Federal Power Act, given the fact that section 10(a) speaks solely to a prospective standard (i.e. Section 10(a) provides that the project shall be one that "will be best adapted to a comprehensive plan for improving or developing..." the waterway in question.)?

2. How would the Commission calculate the "just compensation" owed to the existing licensee upon project takeover? Would just compensation be equal to fair market value? If so, how would fair market value be calculated given the fact that a licensee does not own the value of falling water at a project?

H.R.1815

1. How would the Commission interpret the phrase "taking into account the need to maintain and enhance diversity within the electric industry" for purposes of administering new section 7(d)(1) of the Federal Power Act (as added by section 2(b) of H.R.1815)?

2. How would the Commission apply the two factors set out in new section 7(d)(1)?

3. How would the Commission interpret the directive of new section 7(d)(2) that the Commission shall not "deny a license to a

competing applicant because the competing applicant has not previously operated a hydroelectric project"? Does this directive mean that a lack of previous operation may not be considered at all, or merely that a lack of previous operation cannot by itself preclude the granting of a license?

4. With respect to new sections 7(d)(3) and 7(d)(4), what is the state of existing law concerning project access and the sharing of information? Do these new sections raise any possibilities that one license applicant will gain an unfair advantage from the work of another?

5. How would the Commission interpret the provisions for "just and reasonable compensation" contained in new sections 7(f)(2) and 7(g)(2)? Do these provisions require or allow anything other than ordinary cost-of-service ratemaking under the just and reasonable standard of section 205(a) of the Federal Power Act? Would a utility that was required to expand its transmission capacity be able to recover the cost of expansion solely from those entities for whom the expansion was made? Would the provision for mandatory transmission service contained in new sections 7(f) and 7(g) affect the wheeling authority currently held by the Commission under section 211 of the Federal Power Act?

6. Under the amendment to section 15(a) of the Federal Power Act made by section 3 of H.R.1815, would the existing licensee have the right to demand project output in excess of 25 percent at a given instant provided that the average amount received did not exceed up to 25 percent of project output? How would the new licensee's "cost of power and energy from the project" be determined? Would the receipt of project output by the former licensee after project takeover constitute a jurisdictional sale for resale of electricity under the Federal Power Act?

7. How would the provision in section 5 of H.R.1815 for antitrust review change the Commission's existing duty to consider the antitrust laws in discharging its responsibilities?

8. Would the repeal of the hydroelectric licensing exemption program by section 6 of H.R.1815 affect existing exemptions which have been granted pursuant to final agency action?

H.R.1959

1. How would the Commission apply the four licensing factors provided in new section 15(a)(2) of the Federal Power Act (as amended by section 3 of H.R.1959)?

2. As with the similar provision in S.426, how would the Commission determine the "just compensation" provided for under new section 15(a)(4)?

3. How would the Commission apply the definition of "existing dam or diversion" contained in new section 210(k)(2)(A) of the Public Utility Regulatory Policies Act of 1978 (as added by section 4 of H.R.1959)? Are any problems raised by the fact that new sections 210(k)(2)(A)(i) and (ii) are stated in the conjunctive rather than the disjunctive?

II

99TH CONGRESS
1ST SESSION

S. 403

To amend the Federal Power Act to establish policy and procedures to guide the Federal Energy Regulatory Commission in the issuance of new licenses to operate existing hydroelectric facilities.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 6 (legislative day, JANUARY 21), 1985

Mr. JOHNSTON introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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A BILL

To amend the Federal Power Act to establish policy and procedures to guide the Federal Energy Regulatory Commission in the issuance of new licenses to operate existing hydroelectric facilities.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be referred to as the "Hydroelectric Facility Relicensing Amendments of 1985".

SEC. 2. Section 7(a) of the Federal Power Act (16 U.S.C. 800(a)) is amended—

(a) by inserting "original" after "hereunder or"; and

(b) by striking "and in issuing licenses to new licensees under section 15 hereof".

SEC. 3. Section 15 of the Federal Power Act (16 U.S.C. 808) is amended—

(a) by striking subsection (a) through "terms and conditions to a new licensee," and inserting in lieu thereof:

"SEC. 15(a). If the United States does not, at the expiration of the existing license, exercise its right to take over any project or projects of the licensee, as provided in section 14, the Commission may issue a new license to the existing licensee or to a new licensee. If the existing licensee applies for a new license, the Commission shall issue a new license to such existing licensee unless the Commission determines that the plans of another applicant are better adapted to serve the public interest. If the existing licensee does not apply for a new license, the Commission shall issue a new license to the applicant the plans of which are best adapted to serve the public interest. The Commission shall not issue a license unless it is satisfied that the applicant is able to carry out such plans.

"(b) In making a determination of the public interest under subsection (a), the Commission shall consider—

"(1) the plans of each applicant to develop, conserve, and utilize in the public interest the water resources of the region;

"(2) the relative economic impact upon customers served by each applicant upon the failure of such applicant to receive the license;

"(3) the ability of each applicant to operate and maintain the project in a manner most likely to provide efficient, reliable electric service; and

"(4) the need of each applicant for the electricity generated by the project or projects to serve its existing customers.";

(b) by redesignating the remainder of subsection (a) as subsection (c);

(c) by striking "which license" and inserting in lieu thereof "A license issued under this section"; and

(d) by redesignating existing subsection (b) as subsection (d).

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99TH CONGRESS
1ST SESSION

S. 426

To amend the Federal Power Act to provide for more protection to electric consumers.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 7 (legislative day, JANUARY 21), 1985

Mr. WALLOP (for himself, Mr. SIMPSON, Mr. GARN, Mr. HECHT, Mr. GOLDWATER, Mr. HEFLIN, Mr. WILSON, Mr. LAXALT, Mr. CRANSTON, Mr. DENTON, Mr. CHAFEE, Mr. MURKOWSKI, and Mr. DODD) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To amend the Federal Power Act to provide for more protection to electric consumers.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Electric Consumers Protection Act of 1985".

SEC. 2. Section 7(a) of the Federal Power Act (16 U.S.C. 800(a)) is amended—

(1) by inserting "original" after "hereunder or"; and

(2) by striking out "and in issuing licenses to new licensees under section 15 hereof".

SEC. 3. Section 15(a) of the Federal Power Act (16 U.S.C. 808(a)) is amended—

(1) by striking out "is authorized to" and inserting in lieu thereof "shall";

(2) by striking out "original" each place it appears and inserting in lieu thereof "existing";

(3) by striking out "regulations, or" and inserting in lieu thereof "regulations unless the Commission determines, taking into account public benefits provided during the preceding license term, that such licensee's project or projects, as described in its application for a new license, will not meet the licensing standards set forth in section 10(a). If the Commission determines that the project or projects do not meet such standards, it is authorized"; and

(4) by striking out "such amount" and inserting in lieu thereof "just compensation in an amount that the Commission shall determine in accordance with due process of law."; and by striking the comma after the words "to do".

○

I

99TH CONGRESS
1ST SESSION

H. R. 1815

To amend the Federal Power Act to ensure fair competition in the licensing of existing hydroelectric projects and, in doing so, to maintain and enhance diversity within the electric utility industry, thereby ensuring the maximum development and utilization of the Nation's public resources for the benefit of all electric consumers, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 28, 1985

Mr. MATSUI (for himself, Mr. STARK, Mr. DELLUMS, Mr. LUNDINE, Mr. McKAY, Mr. ADDABBO, Mr. FRANK, and Mrs. BURTON of California) introduced the following bill; which was referred to the Committee on Energy and Commerce

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A BILL

To amend the Federal Power Act to ensure fair competition in the licensing of existing hydroelectric projects and, in doing so, to maintain and enhance diversity within the electric utility industry, thereby ensuring the maximum development and utilization of the Nation's public resources for the benefit of all electric consumers, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. (a) This Act may be cited as the "Fair Competition in Hydroelectric Licensing Act of 1985".

DECLARATION OF POLICY

(b) It is hereby declared to be the policy of Congress to ensure fair competition in the licensing of hydroelectric projects subject to license under this Act on the Nation's waterways and, in doing so, to maintain and enhance diversity within the electric utility industry. Competition in the licensing process, among diverse elements of the electric utility industry, ensures the best and most comprehensive development and utilization of this multipurpose resource in the most cost-effective manner by ensuring full and careful consideration of all potential uses of these waterways, including power production, recreation, navigation, flood control, water supply, and irrigation, consistent with environmental protection.

LICENSING EXISTING HYDROELECTRIC PROJECTS

SEC. 2. (a) Section 7(a) of the Federal Power Act (16 U.S.C. 800(a)) is amended to eliminate in connection with the licensing of existing hydroelectric projects the last right afforded States and municipalities to amend their plans—

(1) by inserting "original" as the seventh word in the section after "hereunder or", and

(2) by striking out "and in issuing licenses to new licensees under section 15 hereof".

(b) Section 7 of the Federal Power Act is amended by adding the following new subsections at the end thereof:

"(d)(1) In issuing a license under section 15 of this Act, when more than one applicant has applied for the license, the Commission, taking into account the need to maintain and enhance diversity within the electric utility industry, shall issue the license to the applicant whose proposal the Commission determines is best adapted to a comprehensive plan as set forth in section 10(a) of this Act. In making such determination, the Commission shall consider, compare, and make findings as to all relevant matters respecting each proposal, including—

"(A) the plans of each applicant to improve and utilize the project, including the proposed utilization by each applicant to achieve efficiency in the production and consumption of electric power, to develop and utilize the waterway or waterways for the use or benefit of interstate or foreign commerce to which the licensed project is related, and for other beneficial public uses, including recreation, navigation, flood control, water supply, and irrigation; and

"(B) the plans of each applicant to avoid or mitigate adverse impacts on fish, wildlife, natural, cultural, and recreational resources related to the continued use and operation of such project and to provide for public opportunities to use and benefit from such resources.

"(2) When the existing licensee and one or more competing applicants have applied for a license under section 15 of this Act, the Commission shall not deny a license to a competing applicant because the competing applicant has not previously operated a hydroelectric project.

"(3) Upon request, the existing licensee shall make available to an entity planning to file a competing application for a new license under section 15 of this Act all plans, drawings, designs, data, and any other information relating to the construction and operation of the project necessary to enable such applicant to file a competing application for the new license and shall grant such competing applicant access to the project works and lands upon reasonable advance notice: *Provided,* That the utility making the request agrees to compensate the existing licensee for the reasonable costs of providing such information.

"(4) The existing licensee shall agree to perform with other competing applicants willing to share in the costs thereof joint environmental, archaeological, cultural, and any other studies required to be submitted with a license application to the extent that (i) such studies would otherwise be duplicative of studies to be performed by the existing licensee and (ii) the relevant governmental agency that recommends or reviews such studies approves the joint study plan. Nothing in this provision shall preclude any party from supplementing such studies at its own expense.

"(5) In the event the Commission determines that the proposal of any State or municipality for a license under section 15 of this Act is equally well adapted as the proposal of any other applicant to a comprehensive plan as set forth in section 10(a) of this Act, the Commission shall give preference to the proposal of the State or municipality for the license.

"(e) In implementing its authority under section 10(a) of this Act to require modification of any project and of the plans and specifications of project works in conjunction with the issuance of any license for a project under section 15 of this Act, the Commission—

"(1) shall, to the maximum extent practicable, protect against and mitigate the adverse impacts on fish, wildlife, natural, cultural, and recreational resources related to the continued use and operation of such project and provide for public opportunities to use and benefit from such resources, and

"(2) may, to the extent found appropriate for the proper utilization and conservation of natural resources, require the adoption and implementation of electricity consumption efficiency improvement programs including, in the case of an electric utility applicant, plans to assist its customers to conserve electricity cost-effectively, taking into account the policies, restrictions, and requirements of relevant regulatory authorities.

"(f) The Commission shall include in each license it issues under section 15 of this Act a condition that requires any electric utility licensee, during the license term,

"(1) to provide transmission services to other electric utilities over its transmission facilities, under just and reasonable rates, terms, and conditions, and for that purpose, if necessary, and

"(2) to increase the transmission capacity of any bulk power transmission facility which it owns or operates, subject to just and reasonable compensation therefor,

if such transmission services or such increase in transmission capacity is necessary or appropriate in order to conserve energy, promote the efficient use of facilities and resources, increase competition in the bulk power supply market, or is otherwise in the public interest.

"(g) In cases where facilities for the transmission of power from the project exist, the Commission shall not, in evaluating applications for licenses under section 15 of this Act, consider whether an applicant has, or has access to, adequate transmission facilities, and, when a license is awarded to a new licensee which is not the existing licensee, the Commission shall order the existing licensee—

"(1) to provide transmission services over its transmission facilities, under just and reasonable rates, terms, and conditions, and

"(2) to increase the transmission capacity of any bulk power transmission facility which it owns or operates, subject to just and reasonable compensation therefor,

where such transmission services or such increase in transmission capacity is necessary to permit transmission of the output of the project to the new licensee.".

PROVISION OF POWER FOR EXISTING LICENSEE'S CUSTOMERS

SEC. 3. Section 15(a) of the Federal Power Act (16 U.S.C. 808(a)) is amended by striking "original" in each place it appears and substituting "existing" and by striking ": *Provided,*" and inserting the following: "and make available at the project to the existing licensee, for the benefit of the customers of such licensee, up to an average of 25 per centum of the output of the project for the initial one-fifth of the license term at the new licensee's cost of power and energy from the project: *Provided,* That the provision of such output shall not adversely affect the status of any bonds, notes or obligations issued, or to be issued, by the new licensee under the then applicable tax laws: *And provided further,*".

ISSUANCE OF NEW LICENSEES

SEC. 4. Section 15 of the Federal Power Act (16 U.S.C. 808) is amended by adding the following new subsection at the end thereof:

"(c) Any new license issued under this section shall be issued by the Commission no later than twelve months prior to the expiration date of the existing license to take effect on the date of expiration. The Commission shall report to Congress within one hundred and eighty days from the date of the enactment of this Act on the procedures it will implement in order to ensure that it will be able to comply with this subsection, including giving such license proceedings priority on its docket, and shall file an annual report with Congress identifying all projects for which new licenses have not been issued in accordance with this subsection and stating the reasons therefor.".

RELICENSING ANTITRUST PROVISION

SEC. 5. The Federal Power Act is hereby amended by adding the following new section 15A (16 U.S.C. 808A):

"(a) The Commission shall promptly transmit to the Attorney General a copy of any application for a license under section 15 of this Act, and the Attorney General shall, within a reasonable time, but in no event to exceed one hundred and eighty days after receiving a copy of such application, advise the Commission whether the activities under the license would tend to create or maintain a situation inconsistent with the antitrust laws as specified in subsection (c) of this section. Such advice shall include an explanatory statement as to the reasons or basis therefor.

"(b) In issuing a license under section 15 of this Act, the Commission shall give due consideration to the advice received from the Attorney General, and the Commission shall not issue a license where it finds that the activities under such license would tend to create or maintain a situation inconsistent with the antitrust laws as specified in subsection (c) of this section. The Commission may include conditions in a license to assure that activities under the license will not create or maintain a situation inconsistent with the antitrust laws, as specified in subsection (c) of this section.

"(c) As used in this section, 'antitrust laws' shall include the following Acts, as amended, 'An Act to protect trade and commerce against unlawful restraints and monopolies' approved July 2, 1890 (15 U.S.C. 1 et seq.); sections 73 to 77, inclusive, of an Act entitled 'An Act to reduce taxation, to provide revenue for the Government, and for other purposes' approved August 27, 1894 (15 U.S.C. 8 et seq.); 'An Act to supplement existing laws against unlawful restraints and monopolies, and for other purposes' approved October 15, 1914 (15 U.S.C. 12, 13, 14 et seq.; 20, 21, 22 et seq.; 29 U.S.C.

52, 53); and 'An Act to create a Federal Trade Commission, to define its powers and duties, and for other purposes' approved September 26, 1914 (15 U.S.C. 41 et seq., 47, 48, 50 et seq.).".

REPEAL OF PROVISION FOR EXEMPTION FROM LICENSING

SEC. 6. Subsection (d) of section 405 of the Public Utility Regulatory Policies Act (16 U.S.C. 2705(d)) is hereby repealed.

SAVINGS PROVISIONS

SEC. 7. The amendments made by this Act shall not apply (a) to any project for which an application for a new license is pending on the date of the enactment of this Act or (b) to any proceeding if an application competing with an application to be filed by the existing licensee has been filed at the Commission before the date of the enactment of this Act.

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99TH CONGRESS
1ST SESSION

H. R. 1959

To amend the Federal Power Act and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 3, 1985

Mr. MILLER of California (for himself, Mrs. BURTON of California, Mr. PANETTA, and Mr. BERMAN) introduced the following bill; which was referred to the Committee on Energy and Commerce

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A BILL

To amend the Federal Power Act and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be referred to as the "Hydroelectric Facility Relicensing Amendments of 1985".

SEC. 2. ORIGINAL LICENSES.

Section 7(a) of the Federal Power Act (16 U.S.C. 800(a)) is amended—

(1) by inserting "original" after "hereunder or"; and

(2) by striking out "and in issuing licenses to new licensees under section 15 hereof".

SEC. 3. RELICENSING OF EXISTING FACILITIES.

Section 15 of the Federal Power Act (16 U.S.C. 808) is amended by striking out subsection (a) and inserting in lieu thereof the following:

"(a)(1) If the United States does not, at the expiration of an existing license, exercise its right to take over any project or projects of the licensee, as provided in section 14, the Commission shall issue a new license to the applicant the plans of which the Commission determines are best adapted to serve the public interest if the Commission is satisfied as to the ability of such applicant to carry out such plans.

"(2) In making a determination under paragraph (1) the Commission shall consider each of the following:

"(A) The plans and capability of each applicant for the improvement and broad, efficient and reliable utilization of the power potential of the waterway or waterways to which the licensed project is related, together with other beneficial public uses, including navigation, flood control, irrigation and recreation.

"(B) The plans and capability of each applicant to protect and mitigate any adverse impacts on (and, in appropriate circumstances, enhance) fish, wildlife, natural, cultural, and recreational resources. In considering such plans and capability, the Commission shall consider the costs as well as the benefits of any proposed protection, mitigation or enhancement.

"(C) The electricity consumption efficiency improvement program of each applicant, including in the case of electric utility applicants, the plans, performance, and capabilities of each such applicant in encouraging or assisting its customers to conserve electricity cost-effectively, taking into account the policies, restrictions, and requirements of relevant State regulatory authorities.

"(D) The economic impacts on the public of the issuance of a new license to each of the applicants, including, in the case of electric utility applicants, the economic impacts on each applicant which will be passed on to its customers upon failure to receive the license.

"(3) If the application of the existing licensee and the application of one or more other applicants equally meet the criteria set forth in paragraph (2), the Commission shall issue the license to the existing licensee.

"(4) Any license issued to any person other than the existing licensee shall be issued on the condition that the new licensee shall, before taking possession of the project or projects involved, pay just compensation in an amount that the Commission shall determine in accordance with due process of law.

"(5) If the United States does not

"(A) exercise the right to take over the project or projects;

"(B) issue a license to a new licensee, or

"(C) issue a new license to the existing licensee upon reasonable terms,

then the Commission shall issue from year to year an annual license to the existing licensee under the terms and conditions of the existing license until the property is taken over or a new license is issued as provided in this subsection.

"(6) This subsection shall apply with respect to any project the license for which is expiring or has expired unless a new license for such project has been issued and has become final agency action before the date of the enactment of Hydroelectric Facility Relicensing Amendments of 1985.".

SEC. 4. AMENDMENT REGARDING NEW DAMS.

Section 210 of the Public Utilities Regulatory Policies Act of 1978 is amended by adding the following at the end thereof:

"(k) NEW HYDROELECTRIC DAMS.—

"(1) CERTAIN PROVISIONS INAPPLICABLE.—The provisions of this section (other than subsection (e)) shall not apply to a hydroelectric generation facility, if such facility impounds or diverts the water of a natural watercourse other than by means of an existing dam or diversion.

"(2) DEFINITIONS.—For purposes of this subsection—

"(A) EXISTING DAM OR DIVERSION.—The term 'existing dam or diversion' means any dam or diversion—

"(i) the construction of which was commenced on or before the enactment of this subsection, and

"(ii) which the Commission determines does not require any construction or enlargement of impoundment structures (other than repairs of reconstruction) except for the addition of flashboards (or similar adjustable devices).

"(B) COMMENCEMENT OF CONSTRUCTION.—The term 'commencement' when used with respect to construction means the beginning of physical onsite building or excavating activities other than preliminary surveys, testing, and planning activities.".

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FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

July 9, 1985

Honorable Frank H. Murkowski
Chairman, Subcommittee on Water
and Power
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

In response to your letter dated June 24, 1985, I am enclosing for inclusion in the Subcommittee hearing record of June 11, 1985, responses to questions submitted by Senator Evans, as well as analyses of S. 1219 and S. 1260. I reiterate the statement in my testimony that the views expressed herein are my own and not necessarily those of the Commission or any other Commissioner.

At this time, it is not possible to compile a complete list of projects, licensees, and applicants which would be subject to the "savings clauses" of S. 1219 and S. 1260. S. 1219 would not apply to any project for which an application is pending on the date of enactment. Since licensing decisions may be made for projects on which applications are currently pending and new applications may be filed for licenses that are pending, but not decided when the bill is enacted, it cannot be determined what applications would be pending at an uncertain date in the future on which S. 1219 might be enacted. The provisions of S. 1260 would not apply to any application pending upon enactment or any application filed for a project if the current term expires prior to 1989. As with S. 1219, it cannot be determined what applications would be pending upon enactment. In addition, it cannot be determined what applications might be filed subsequent to enactment for projects with licenses expiring prior to 1989.

I am submitting to the Subcommittee the enclosed list of those projects with licenses expiring prior to 1989, showing the date of expiration of the current license and identity of the existing licensee, and a list of projects for which competing applications have been filed.

If I can be of further assistance in this or any other Commission matter, please let me know.

Sincerely,

A. G. Sousa
Commissioner

Enclosures

Enclosure

Analysis of S. 1219, "Fair Competition in Hydroelectric Licensing Act of 1985"

S. 1219 would amend Sections 7(a) and 15(a) of the Federal Power Act (FPA), 16 U.S.C. §§ 800(a), 808(a), to specifically require that under Section 7(a) preference be given to applications by states and municipalities (hereinafter "municipalities") in relicensing competition regardless of whether the original licensee is competing for the new license. Thus, to the extent that a municipality's plans are deemed equally as well adapted to serve the public interest as those of any other non-municipal competitors, the Commission would be required to issue a new license to that municipal applicant. S. 1219 would, however, eliminate the current statutory right granted to municipal competitors to amend their plans to make them equally as well adapted as those of a non-municipal competitor. A municipality's right to amend a relicense application at any time in the proceeding would thus be governed by the same procedural rules that apply to all competing relicense applications.

S. 1219 would not alter the current statutory basis for compensating an original licensee in the event a new license is issued to a new licensee. Compensation would be based on net investment plus severance damages as set forth in Section 14 of the FPA, 16 U.S.C. § 807(a). The proposed legislation would augment this compensation by revising Section 15(a) of the FPA to require the new licensee to provide the previous licensee up to 25 percent of the relicensed project's output for one fifth of the new license term. Such power would be provided at the new licensee's cost of power and energy from the project. It is not clear what determines the percentage of output to be provided or how the cost of power and energy provided an existing licensee are to be calculated. Such power costs could be calculated on the basis of the cost of acquisition (net investment plus severance damages) of the project by the new licensee plus operation and maintenance costs, administrative costs and annual charges. Inasmuch as S. 1219 retains the net investment-based compensation, power costs should be substantially less than avoided energy costs.

Proposed new Section 15(a) requires that the sale of project output to the previous licensee not adversely affect the status of any bonds, notes or obligations of the new licensee. To the extent that providing relatively inexpensive power to the previous licensee would "adversely affect" such obligations, it is not clear whether the provision for output sales would not apply, or whether the cost of power would have to be increased to a level that would not affect the status of these obligations.

If the new licensee is a municipal utility, this sale to the previous licensee would not be within the Commission's ratemaking authority, since a municipal utility is not a "public utility" as defined under Section 201 of the FPA.

S. 1219 contains a number of provisions that would enhance the ability of any non-licensee to compete for a new license:

(1) Proposed Section 7(d)(3) would require existing licensees to make available to entities planning to file a competing application for new license "all plans, drawings, designs, data, and any other information relating to the construction and operation of the project necessary to enable such applicant to file a competing application . . ." The licensee would be entitled to the reasonable costs of providing such information. Competitors would also be guaranteed access to project works and lands upon reasonable advance notice.

There is currently no provision in the Commission regulations that would require existing licensees, in advance of filing an application for a new license, to share data, designs, studies and other information necessary to file a competing application for a new license. Once an application is filed, it becomes public information and available to competing applicants. Further information supporting the filed application may be obtained through petitioning for discovery under the Commission's general procedural rules. 18 C.F.R. Part 385. The Commission in Pacific Gas and Electric Company, Project No. 173, City of Santa Clara, California, Project No. 2745, 56 FPC 1049 (1976), ordered an existing licensee to disclose historical information regarding the operation of its project to a competing applicant for a new license, but declined to require disclosure of certain studies that were considered the licensee's work product. In denying disclosure, the Commission noted that granting discovery of those studies would in effect compel the existing licensee to underwrite the efforts of its competitor.

(2) Proposed Section 7(d)(4) would require licensees to agree to perform joint studies with other competing applicants willing to share in the costs, provided that (1) such studies would otherwise be duplicative of studies to be performed by the existing licensee, and (2) the relevant government agency that recommends or reviews such studies approves the joint study plan.

It appears that the proposed legislation would vest in the Commission the authority to resolve any dispute whether a separate study would be duplicative and any dispute regarding respective roles and responsibilities in carrying out any joint study. Two questions arise with respect to this provision. First, a licensee may not know, at the time it engages in such studies, who its competitors will be, and therefore joint studies may be unfeasible. Also, if the competitors would have access to such studies at mere duplication costs under proposed Section 7(d)(3), it is not clear what incentive they would have to engage in joint studies at shared cost.

(3) Section 15 of the FPA would be amended to provide that the Commission shall not, in evaluating competing relicense applications, consider whether an applicant has adequate transmission facilities.

This provision would limit the Commission's ability to consider such factors as the effect on ratepayers of additional costs incurred to obtain such transmission and the effect of transmission-related difficulties on the efficient operation of the project. Such a restriction would hamper the Commission's ability to assure that the broad public interest is served.

(4) To complement the above provision, proposed Section 7(g) would require the Commission to order existing licensees to provide the new licensee transmission services over its facilities and to increase transmission capacity of any bulk transmission facility when necessary to permit transmission of the output of the project. Proposed Section 7(f) would require that all new licenses issued under Section 15 be conditioned to require any "electric utility licensee" to provide transmission services and increase bulk power transmission facilities if "necessary or appropriate in order to conserve energy, promote the efficient use of the bulk power supply market, or is otherwise in the public interest." It should be noted that the transmission rate authority of the Commission under Section 205 of the FPA relates only to public utilities, which excludes municipal licensees. Since proposed Section 7(f) refers to "any electric utility licensee," it could arguably expand the Commission's current jurisdiction.

Proposed Sections 7(f) and 7(g) would substantially expand the Commission's current authority to order wheeling. The proposed standards to order wheeling amend the existing standards in

Sections 211 and 212 of the FPA. For example, Section 211(c)(1) provides that the Commission shall not order mandatory transmission "unless the Commission determines that such order would reasonably preserve existing competitive relationships" (emphasis added). Proposed Section 7(f) would alter this finding to merely require a determination that the order would "increase competition in the bulk power supply market" (emphasis added). Section 211(a)(2)(B) currently authorizes the Commission to order wheeling that would, inter alia, "significantly promote the efficient use of facilities and resources" (emphasis added). Proposed Section 7(f) would delete the word "significantly" and thereby reduce the threshold showing required. Similarly, current Section 211(a)(1) authorizes wheeling that the Commission finds "is in the public interest" and meets a variety of other standards set forth therein. Proposed Section 7(f) would add "is otherwise in the public interest" as an independent basis for ordering wheeling. Additionally, Section 212 of the FPA provides a number of constraints on the Commission's current authority to order mandatory transmission service that are not incorporated in proposed Sections 7(f) and 7(g).

S. 1219 retains Section 10(a) of the FPA, 16 U.S.C. § 803(a), as the standard for judging the merits of competing applications. However, the bill specifically designates two criteria for the standard. First, clause (A), in part, paraphrases the current Section 10(a) standard and specifically adds to it the ability of "each applicant to achieve efficiency in the production and consumption of electric power . . . ." Although the ability of an applicant to operate a project is clearly a factor under the current Section 10(a) standard, the Commission has not had occasion to address the extent to which "efficiency in production and consumption of electric power" could be considered. A licensee's ability to promote and comply with Federal and state energy policies, including conservation, would be a factor to consider and weigh with other public interest factors. To the extent, however, that this provision would require an exhaustive examination of past or future compliance with regulatory requirements handled at the Federal, state, or local level, it would be inappropriate, would encumber the progress of the proceeding, and could obscure the proper scope of the Federal concerns in relicensing.

Clause (B) would require consideration of adverse impacts on fish, wildlife, natural, cultural and recreational resources, mitigation of any such impacts, and public use and benefit to be derived from such resources. All of these factors are currently considered by the Commission under Section 10(a).

To the extent such specific criteria may conflict or create ambiguities with the broad public interest criteria in Section 10(a), the Commission's relicensing decisions may be embroiled in confusion and litigation. For the most part, these criteria are encompassed under the current Section 10(a) standard. Therefore, the Commission's current scope of comparison of competing applications under Section 10(a) might not be measurably altered. However, if the law is amended to specify only some elements of the public interest that are potentially affected in relicensing, while omitting others, it is unclear what weight should be ascribed to any item in the context of a balanced relicensing decision. For example, do the specified public interest factors take on more importance than other factors usually considered under the Section 10(a) standard? Under the current Section 10(a) mandate, the Commission has the discretion to attribute appropriate weight to any one public interest factor in light of the circumstances of the particular case before it.

S. 1219 would revise current procedures for considering the potential anti-competitive effects of applications for new license. Pursuant to Section 10(h) of the FPA, 16 U.S.C. § 803(h), in all licensing proceedings the Commission must prohibit arrangements to restrain trade, fix prices or otherwise violate Federal antitrust laws. Prior to issuing a license, the Commission conducts a review of antitrust considerations that relate to the operation of the hydroelectric facility, and imposes conditions where needed to avoid antitrust violations. The proposed new Section 15(c) of the Federal Power Act does not appear to alter this obligation or the scope of the Commission's review. However, the language of the provision, "that the activities under such license would tend to create or maintain a situation inconsistent with the antitrust laws" (emphasis added), raises questions whether a lesser standard is intended than that provided in Section 10(h) of the Federal Power Act. It would also alter the procedures on relicensing by requiring that all applications for new licenses be submitted to the Attorney General for advice regarding potential antitrust implications. The Commission would then be required to consider such advice in issuing and conditioning a new license. This procedure appears unnecessary and duplicative since such a review is currently conducted by the Commission as required under Sections 10(h) and 10(a).

S. 1219 would add new Section 15(c) to require that the Commission issue any new license no later than 12 months prior to the expiration date of the existing license. This new subsection would conflict with the Commission's authority under Section 15(a) to issue annual licenses upon the expiration of an original license. This requirement would also seriously jeopardize the Commission's ability to conduct proceedings appropriate to the circumstances of each specific project.

On a matter not related to the relicensing of hydropower projects, S. 1219 would repeal Section 405(d) of the Public Utility Regulatory Policies Act (PURPA) and thus limit exemptions from licensing to the narrow category of projects that qualify as conduit hydroelectric facilities subject to exemption under Section 213 of PURPA. 16 U.S.C. § 823(a). It appears that this repeal would have no effect on exemptions that are final for purposes of administrative action. However, without the inclusion of a savings clause or without express reserved authority it is unclear to what extent, if any, the Commission would retain authority over issued exemptions. Without such authority, the Commission would be unable to enforce the standard terms and conditions set forth in 18 C.F.R. § 4.106 or to amend exemptions to accommodate future changes in circumstances.

Another amendment to PURPA proposed by S. 1219 provides that the provisions of Section 210 that grant special status to cogenerators and small power producers would not apply to projects that utilize new dams or diversions. Only qualified dams on which construction had begun prior to passage of the bill would be entitled to "qualifying status."

Enclosure

Analysis of S. 1260, "Hydroelectric Relicensing Reform Act of 1985"

S. 1260 proposes to amend Sections 7, 14 and 15 of the Federal Power Act (FPA) to provide for municipal preference on relicensing when the competing plans are deemed equally well adapted. When municipal preference cannot operate, i.e., if all or none of the competitors are states or municipalities, the existing licensee would be preferred in the event of a tie. In all other situations, the applicant with the plans deemed best adapted to serve the public interest would be granted the license.

S. 1260 would eliminate the Section 10(a) comprehensive development standard as the basis for judging relicense applications. Instead, S. 1260 creates a separate public interest standard in proposed Section 15(c)(3) that requires the Commission to consider: (a) the economic impact on the existing licensee's customers; (b) any impairment from loss of the project that might result in the existing licensee's ability to meet its load requirements; (c) fish and wildlife impacts; and (d) energy efficiency programs of the competitors. This listing of specific criteria to be considered in an evaluation of the suitability of an applicant's plans under the public interest standard raises interpretive questions for the Commission. The current standard used in licensing and relicensing determinations is a broad public interest standard that encompasses each of the criteria listed in the bill in addition to many others. To the extent the public interest standard adopted by S. 1260 requires consideration of all factors in the public interest, as does the current standard, a question is created as to the weight that should be ascribed to any item in the context of a balanced relicensing decision. It is unclear whether the specific criteria listed are more important than other public interest factors usually considered.

In addition to the above-listed items, S. 1260 directs that the Commission consider how the competing plans are adapted to any state-developed comprehensive plan (or in the Northwest, a Pacific Northwest Electric Power and Conservation Planning Council-developed plan) or, if there is no plan, the recommendations of state and Federal agencies and Indian tribes exercising administration over resources and public purposes at the project. The Commission's independent comprehensive development responsibilities under Section 10(a) of the FPA are thus eliminated on relicensing.

The broad mandate of Section 10(a) requires the Commission to consider all issues relevant to the public interest, including state-wide or regional concerns. Under this standard, regional and state comprehensive plans may be considered by the Commission in making its licensing decision. Such plans are evaluated and weighed in conjunction with other factors affecting the public interest to ensure that the Commission reaches a balanced independent decision with respect to the public interest. Therefore, substitution of state or regional comprehensive plans for the Commission's current Section 10(a) comprehensive development authority would narrow the current scope of evaluation at relicensing.

In those instances where a state-developed comprehensive plan does not exist, S. 1260 does not address how conflicts among the recommendations of state and Federal agencies and Indian tribes are to be resolved. Currently under Section 10(a), the Commission serves as the final arbiter of what constitutes comprehensive development except to the extent that a Federal agency may exercise its independent authority with respect to Federal reservations under Section 4(e) of the FPA.

Procedurally, S. 1260 would regulate the amendment of applications to ensure all competitors equal opportunities to upgrade their applications. This would eliminate the opportunity municipalities currently have under Section 7(a) to amend their relicensing applications to equal their competitors' plans. Under S. 1260 existing licensees must give notice three years in advance of expiration of the license of their intent to file applications and are given six months thereafter to file. Competitors must file within six months thereafter. All competitors then have a right (no later than one year prior to license expiration) to amend their proposals to improve upon the applications previously filed.

In the event a new licensee is selected to take over a licensed project, S. 1260 retains the statutory net investment basis for compensating an original licensee. Proposed Section 15(d)(4) would, however, require the new licensee also to pay 50 percent of the additional cost incurred by the original licensee to obtain alternative power for the term of the license. Any such payments must be passed directly to the customers of the existing licensee.

Proposed Section 15(c)(2) directs that new licenses shall be issued for a period not to exceed 30 years, unless the Commission determines a longer license term is necessary to best serve the public interest. Although S. 1260 does not indicate a maximum license term on relicensing, the 50-year maximum imposed by Section 6 of the FPA on all licenses issued under Part I would continue to govern new licenses issued under Section 15 as amended by S. 1260.

The provisions of S. 1260 would not apply to any application for new license pending before the Commission as of the date of enactment of the Act for a license for a project for which an existing license expires prior to January 1, 1989. A determination of the projects or applicants to which the bill, if enacted, would apply cannot be made with certainty. During the period before enactment of the bill, licensing decisions may be made for projects on which applications are currently pending; and new applications may be filed for licenses that are pending, but not yet decided when the bill is enacted, or subsequent to enactment for licenses expiring prior to 1989. The attached lists, however, itemize projects for which license terms expire prior to 1989 and projects for which competing applications have been filed.

Responses of Commissioner A. G. Sousa to Questions Submitted by Senator Evans for Inclusion in the Hearing Record of June 11, 1985, of the Subcommittee on Water and Power

Question 1: On p. 2 of your testimony, you mention that "there is uncertainty surrounding the relicensing process that will persist until final court action occurs."

(a) Is it the judgment of the Commission that the uncertainty is high enough to make legislation necessary at this time?

(b) Would it not be prudent to wait until final court action occurs before Congress pursues legislative action?

Answer 1(a): Uncertainty exists because the Commission's decision in Merwin has been appealed to the United States Court of Appeals for the District of Columbia Circuit. Until judicial review of Merwin is completed or legislation is enacted, potential competitors for new licenses cannot know with certainty what the ground rules will be when their applications are considered. Moreover, the court can review only the contested legal issues presented by the facts of the case before it. The court's decision in Merwin, therefore, will not give definitive guidance on what the law requires on all relicensing issues. In addition to those issues on which the law may not be clear, there are relicensing issues for which the existing law, though clear, may not be an accurate reflection of current thinking on appropriate public policy.

(b) The Federal Power Act is a congressional statement of public policy on non-Federal development of hydropower resources. As such, it seems more in the public interest to have any revisions to or clarifications of it made by Congress rather than by the courts. Furthermore, as mentioned above, any court decision must address the facts of the case before the court and therefore will not necessarily provide broad, general guidance to the Commission for other relicensing decisions. The legislation that has been offered responds to several important relicensing controversies that are not before the court in Merwin. Considering the high stakes for electric ratepayers in the Commission's decisions in relicensing proceedings, it would not be prudent for Congress to wait until final court action before enacting legislation.

Question 2: Economic impact: In the Merwin ruling, you seem to have decided the "greatest good for the greatest number" as the appropriate criterion.

(a) Why is the impact on the total number of ratepayers more significant than the per capita impact?

(b) Why does the Commission use a relative economic impact analysis, if it is concerned primarily about rate stability and the economic impact upon the present licenseholder?

(c) Do you believe that the economic impact analysis should include any compensation that the existing licensee receives in the event the license is transferred?

Answer 2(a): Impact on the total number of ratepayers is a more accurate reflection of social costs and benefits, and therefore better represents the potential impact on the public interest. As the Commission stated in Merwin, "The calculation of benefits per system customer would automatically favor the competitor with the fewer number of customers, without regard to the mix of customers or their requirements. Further, giving great weight to such a calculation would inherently mean that larger benefits for the few take precedence over small benefits for the many." 25 FERC ¶ 61,052 at p. 61,199.

(b) The Commission is concerned about consumers generally. Therefore, the rate stability of the existing licensee is only part of the economic impact analysis. The Commission also includes in the analysis the benefits that would accrue to the new licensee if the license were transferred to it. These benefits to the new licensee may justify the adverse impacts on the existing licensee of losing the license.

(c) Since the Commission did not address the issue of compensation in reaching its decision in Merwin, and inasmuch as Merwin may be remanded to the Commission, any answer to this question may preclude my consideration of that issue in the future.

Question 3: License Term: What does the Commission believe that the most relevant license term is, taking into account the minimum period for full recovery of the investment, the average useful lives of additions and improvements to power facilities, the life of fish/wildlife mitigation facilities?

Answer 3: The license term, whether for an initial or new license, should be focused primarily on assuring recovery of the licensee's investment. Additional public policy and site-specific considerations may dictate a longer or, in some instances, a shorter license term. The appropriate length for the license term, therefore, varies from project to project.

The Commission's usual policy at relicensing is to limit the license term to 30 years from the end of the prior license, if no substantial new construction or redevelopment is proposed. This period gives the licensee a sufficient degree of certainty to permit integration of the project into its overall plans, while at the same time bringing the project before the Commission for consideration within a reasonable period. A license term of 40 years is granted if some development or a substantial redevelopment is proposed. The Commission has determined that substantial new construction justifies relicensing an existing project for a term of 50 years from the end of the prior license.

An initial license for a totally new project is given a 50-year term. This policy, however, is subject to deviation when appropriate. Factors may be present in any given proceeding, such as safety and adequacy considerations, that, together with policy considerations, support a different term of license.

Section 6 of the Federal Power Act imposes a 50-year maximum on all license terms.

Question 4: On p. 11 of your testimony, you indicate why you feel that "just compensation" is the most appropriate form of compensation. You state that this will most likely compensate the licensee for its actual loss, but allow for adequate flexibility.

(a) Explain in more detail what your interpretation of just compensation is, with specific reference to its flexibility. Please refer to the most relevant court decisions.

(b) In your view, who should make the determination of the calculation of just compensation, and what should be the process of cross-examination and rebuttal for both parties?

If the Commission is to make the decision and establish the methodology, please provide relevant materials.

Answer 4(a): Just compensation is a standard based on the actual economic value of the project. Such a standard allows and requires the consideration of more variables than does a standard such as the current net investment with severance damages standard. The current standard is likely to provide to the existing licensee only limited compensation that has little relation to the real present value of the project.

Because the Commission has not addressed in any of the relicensing cases that have come before it the issue of takeover compensation, it has not determined what court cases might be authoritative.

Answer 4(b): The responsibility under current law to determine takeover compensation rests with the Commission. A determination of just compensation under due process of law would require that, if there are disputed issues of fact, the parties be given an opportunity for a hearing. Whether an evidentiary, trial-type hearing would be required would depend on the circumstances of the case and the nature of the dispute.

Since the Commission has not yet been engaged in a compensation proceeding, no procedures have been established. A procedure could be devised in an actual proceeding or generically through a rulemaking.

Question 5: Pending applications:

(a) How many relicensing applications are pending before the Commission?

Please provide your most recent list, including both adversarial and non-adversarial applications?

(b) Of the pending applications, the Commission has decided to review two cases -- Bountiful and Merwin.

By what criteria and priority did you select these two licenses?

What are the Commission's plans to review the remaining pending applications?

Answer 5(a): Forty-two licenses have expired that are pending renewal. Nine more licenses will expire in 1986. Fifteen of these proceedings, in addition to one for a license expiring in 1987, involve competing applications. Enclosed are lists of (1) all licensed projects with date of expiration of the current license, identity of the existing licensee, and notation of the 95 projects that have been relicensed, (2) those projects with license terms expiring prior to 1989, and (3) those projects for which competing applications have been filed, with identity of applicants.

Answer 5(b): As indicated in (1) above, the Commission has reviewed many projects and issued new licenses. The Bountiful decision was a declaratory order deciding a purely legal issue that did not hinge on the facts of a particular case. It was precipitated by petitions for a declaratory order filed in 1978 by the cities of Bountiful, Utah, and Santa Clara, California, which had filed competing applications for projects owned and operated by Utah Power & Light Company and Pacific Gas & Electric Company, respectively.

There is nothing articulated in the Commission's issued documents in Merwin to indicate the basis for selecting these applications for consideration before any others, or whether the Commission's consideration resulted from such a conscious selection.

Answer 5(c): When the court decision in Merwin is issued affirming or reversing the Commission's position, the Commission will move immediately and expeditiously to carry out the court's mandate as applied to the Merwin case and other pending hydroelectric relicensing cases, absent further judicial review. In the interim period, the Commission over its objection may face a mandate by other courts to act on pending relicensing applications if an applicant is granted a petition for mandamus.

Question 6: What is the number of staff working on pending hydrolicensing applications today? Describe briefly their institutional relationship to the Hydropower Licensing Division:

(a) Considering the bulge of relicensing applications coming up in the 1990's, do you believe that you will have adequate staff resources to handle the caseload?

If not, what are your best estimates of the increases in staff and expenses that relicensing may take?

Answer 6: The offices involved in the processing of hydroelectric applications are the Office of the General Counsel (OGC) and the Office of Hydropower Licensing (OHL).

A total of 158 staff members in OHL work directly on hydroelectric applications. OHL consists of the Division of Project Management, Division of Inspections, and the Division of Environmental Analysis. The processing of applications is the responsibility of the Division of Project Management (DPM). DPM is comprised of four entities: Project Management East and West Branches, Design Review Branch, and Headwater Benefits and Power Site Lands Branch. The Project Management Branches are responsible for coordination of application processing. The Design Review Branch of DPM handles structural, comprehensive development and economic analyses, and need for power and transmission line analyses. The Division of Environmental Analysis reviews and analyzes the environmental exhibits in each application. The Division of Inspections supervises the dam safety inspection program and checks for compliance with the Commission's project orders. Legal analysis is provided by OGC, Hydroelectric Division, with a staff of 29.

In addition to OHL and OGC, other Commission offices work on various aspects of hydroelectric applications. For example, the Office of Administrative Law Judges is responsible for any formal hearing on these applications.

Answer 6(a): From 1990 to 1999, 295 applications for relicense are expected to be filed. The impending increase in relicensing responsibilities coincides with the high level of staff activity required by the "small hydro boom" -- the increase in hydropower development created by legislative incentives in the late 1970s. The workload generated from the tremendous surge in hydroelectric license and exemption applications has stretched the Commission's staff resources to their limits.

This circumstance will be exacerbated as relicensing activity increases. If an expected decrease in new capacity license applications occurs, however, the reduced backlog in these applications will moderate the impact of the relicensing workload.

Question 7: Do you believe that the annual licensing of the Commission (year-to-year licensing authority) should be continued in its present form?

Answer 7: The Commission has authority under Section 15(a) to issue annual licenses upon the expiration of an original license. This authority is only invoked when a new license cannot be issued by the expiration date of a license. The ability to issue annual licenses has provided the Commission the flexibility necessary to evaluate properly applications for new licenses in a wide variety of situations and to conduct proceedings appropriate to the circumstances of each specific project.

Question 8: 1953 Amendments: The amendments adopted in 1953 to the Federal Power Act (16 U.S.C. 828b) appear to exempt public licensees from certain parts of Section 14.

In the Commission's view, does this prevent the federal government from exercising its recapture authority?

(a) Do these provisions apply only to recapture by the U.S. Government, or also to any other entity taking over the facility? Specifically, is it your view that the new [sic] depreciated formula plus severance damages apply if the dam license were transferred to an investor-owned or public utility?

Answer 8: 16 U.S.C. § 828(b) exempts state and municipal projects from takeover by the Federal government provided for in Section 14. These projects would still be subject, however, to Federal condemnation with just compensation under eminent domain proceedings.

Answer 8(a): State and municipal licensees are not exempt from Section 15, which provides for takeover by another entity. However, Section 15 provides that the new licensee pay the original licensee what the United States is required to pay, referring to the Section 14 net investment standard. Since state and municipal licensees were exempted by the 1953 amendments from Section 14, and a Federal government takeover of a state or municipal project would require just compensation under eminent domain proceedings, it is unclear how the takeover price is to be determined.

Hydroelectric Relicensing Proceedings Involving Competing Applications
As of May 1985

Project Name and Number

- a. owner (including whether owner is a "state" or "municipality" or other
- b. rated capacity
- c. location
- d. expiration date of current license
- e. date of relicensing, if applicable
- f. competing applicant name(s) and designated FERC project number(s).

(Note: When a license expires, the project continues to operate under automatically-issued annual licenses. See Section 15(a), 16 U.S.C. § 808(a)).

1. Mokelumne Project No. 137

- a. Pacific Gas and Electric Company (private)
- b. 192,750 KW
- c. North Fork Mokelumne River, CA
- d. 11/23/75
- e. has not yet been relicensed
- f. The City of Santa Clara, CA (municipal) filed a competing application designated as FERC Project No. 2745.

2. Olmsted Project No. 596

- a. Utah Power and Light Company (private)
- b. 10,300 KW
- c. Provo River, Utah
- d. 10/20/75
- e. has not yet been relicensed.
- f. The City of Bountiful, Utah (municipal) and Utah Municipal Power Company (municipal) filed competing applications designated as FERC Project Nos. 4040 and 4029, respectively.

3. Rock Creek-Cresta Project No. 1962

   a. Pacific Gas and Electric Company (private)
   b. 180,900 KW
   c. North Fork Feather River, CA
   d. 9/30/82
   e. has not yet been relicensed
   f. Sacramento Municipal Utility District, Northern California Power Agency and the Cities of Anaheim, Azusa, Banning, Colton and Riverside, CA (municipal) filed a competing application designated as FERC Project No. 3223.

4. Weber Project No. 1744

   a. Utah Power and Light Company (private)
   b. 3,465 KW
   c. Weber River, Utah
   d. 6/30/70
   e. has not yet been relicensed
   f. The City of Bountiful, Utah (municipal) filed a competing application designated as FERC Project No. 2747.

5. Phoenix Project No. 1061

   a. Pacific Gas and Electric Company (private)
   b. 1,800 KW
   c. South Fork Stanislaus River, CA
   d. 12/25/80
   e. has not yet been relicensed
   f. The Tuolumne County Water District (municipal) filed a competing application designated as FERC Project No. 4309.

6. Shawano Project No. 710

   a. Wisconsin Power and Light Company (private)
   b. 640 KW
   c. Wolf River, WI
   d. 7/19/77
   e. has not yet been relicensed
   f. The City of Shawano (municipal) filed a competing application designated as FERC Project No. 2865.

7. Rush Creek Project No. 1389

   a. Southern California Edison Company (private)
   b. 8,400 KW
   c. Rush Creek, CA
   d. 11/30/86
   e. has not yet been relicensed
   f. June Lake Public Utility District (municipal) filed a competing application designated as FERC Project No. 6930.

8. Poole Project No. 1388

   a. Southern California Edison Company (private)
   b. 10,000 KW
   c. Lee Vining Creek, CA
   d. 11/30/86
   e. has not yet been relicensed
   f. City of Vernon, CA (municipal) filed a competing application designated as FERC Project No. 7263.

9. Walters Project No. 432

   a. Carolina Power and Light Company (private)
   b. 108,000 KW
   c. Pigeon River, NC
   d. 11/22/76
   e. has not yet been relicensed
   f. North Carolina Electric Membership Corporation (private) filed a competing application designated as FERC Project No. 2748.

10. Kerr Project No. 5

    a. The Montana Power Company (private)
    b. 168,000 KW
    c. Flathead River, Montana
    d. 5/22/80
    e. has not yet been relicensed
    f. The Confederated Salish and Kootenai Tribes of the Flathead Reservation (private) filed a competing application designated as FERC Project No. 2776.

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11. Grandfather Falls Project No. 1966

    a. Wisconsin Public Service Company (private)
    b. 17,240 kW
    c. Wisconsin River, WI
    d. 12/31/87
    e. has not yet been relicensed
    f. The Wisconsin Public Power Inc. System (municipal) filed a competing application designated as FERC Project No. 8243.

12. Azusa Project No. 1250

    a. City of Pasadena, California (Public)
    b. 3,000 kW
    c. San Gabriel River, CA
    d. 12/31/84
    e. has not yet been relicensed
    f. The San Gabriel Hydroelectric Partnership (private) filed a competing application for exemption designated as FERC Project No. 8764.

13. Hudson Falls Project No. 5276 (Formerly Project No. 2482)

    a. Niagara Mohawk Power Corporation (Private)
    b. 7,050 kW
    c. Hudson River, NY
    d. 5/18/84
    e. has not yet been relicensed
    f. The Long Lake Energy Corporation (private) filed a competing application designated as FERC Project No. 4128.

14. South Glen Falls Project No. 5461 (Formerly Project No. 2482)

    a. Niagara Mohawk Power Corporation (Private)
    b. 12,000 kW
    c. Hudson River, NY
    d. 5/18/84
    e. has not yet been relicensed
    f. The Long Lake Energy Corporation (private) filed a competing application designated as FERC Project No. 4331.

15. Mechanicville Project No. 6032 (Formerly Project No. 2500)

    a. Niagara Mohawk Power Corporation (Private)
    b. 12,000 kW
    c. Hudson River, NY
    d. 5/18/84
    e. has not yet been relicensed
    f. The Long Lake Energy Corporation (private) and the New York State Research and Development Authority (public) filed competing applications designated as Project Nos. 4687 and 5799, respectively.

16. Oswego River Project No. 5984

    a. Niagara Mohawk/City of Oswego
    b. 18,000 KW
    c. Oswego River, NY
    d. 5/18/84
    e. has not yet been relicensed
    f. Carlson Leto, Inc. (private), designated as FERC Project No. 6570.

LICENSES EXPIRING PRIOR TO 1989

LIC-EXP-DT	PROJ-NAME	ST	DEV-STREAM-NAME	DEV-CAP-INST	DEV-CAP-PROP	DEV-NO	PROJ-NO
10/30/1970	WEBER	UT	WEBER	1465		174401	1744
12/13/1973	WELLS RURAL	NV	TROUT CR	[illegible]		68801	688
10/02/1974	CUSHMAN NO 1 & NO	WA	SKOKOMISH N FK	81000		46001	460
10/02/1974	CUSHMAN NO 1 & NO	WA	SKOKOMISH N FK	43200		46002	460
10/04/1974	BEAR VALLEY & LAKE WOHLFO RD	CA	ESCONDIDO CR	1500		17601	176
10/04/1974	BEAR VALLEY & LAKE WOHLFO RD	CA	ESCONDIDO CR	[illegible]		17602	176
10/04/1974	BEAR VALLEY & LAKE WOHLFO RD	CA	ESCONDIDO CR			17603	176
[illegible]/1978	KAWEAH	CA	KAWEAH	[illegible]		29801	298
[illegible]/1978	KAWEAH	CA	KAWEAH	[illegible]		29802	298
[illegible]/1978	KAWEAH	CA	KAWEAH	[illegible]		29803	298
12/31/1975	OLMSTED	UT	PROVO RIVER	[illegible]		69601	696
12/31/1975	MOKELUMNE	CA	MOKELUMNE N FK	[illegible]		13701	137
12/31/1975	MOKELUMNE	CA	MOKELUMNE N FK	[illegible]		13704	137
12/31/1975	MOKELUMNE	CA	MOKELUMNE N FK	[illegible]		13705	137
12/31/1975	MOKELUMNE	CA	MOKELUMNE N FK	[illegible]		13702	137
12/31/1975	MOKELUMNE	CA	MOKELUMNE N FK	[illegible]		13703	137
[illegible]/1976	GLINES CANYON	WA	ELWHA	[illegible]		58801	588
12/18/1976	LOCK NO 7	KY	KENTUCKY	[illegible]		53901	539
11/[illegible]/1976	WALTERS	NC	PIGEON	[illegible]		43201	432
07/19/1977	SHAWANO	WI	WOLF	[illegible]		71001	710
12/[illegible]/1977	SAN JUAN	AK	SAN JUAN LAKE	[illegible]		225101	2251
12/[illegible]/1977	SKAGIT RIVER	WA	SKAGIT	[illegible]		55301	553
12/[illegible]/1977	SKAGIT RIVER	WA	SKAGIT	[illegible]		55302	553
12/[illegible]/1977	SKAGIT RIVER	WA	SKAGIT	[illegible]		55303	553
[illegible]/1978	RIO BLANCO	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
05/22/1980	KERR	MT	FLATHEAD	[illegible]		501	5
[illegible]/1980	UINTA	UT	UINTA	[illegible]		19001	190
12/25/19[illegible]	PHOENIX	CA	STANISLAUS S FK	1600		106101	1061
[illegible]	CRESTA & ROCK CREEK	CA	FEATHER N FK	[illegible]		196201	1962
[illegible]	CRESTA & ROCK CREEK	CA	FEATHER N FK	[illegible]		196202	1962
[illegible]/1983	LAKE HILL	UT	COTTONWOOD CR	[illegible]		121201	1212
[illegible]/1983	LAKE HILL	UT	[illegible] MOUNTAIN SPRINGS			121202	1212
12/[illegible]/1983	RADFORD	VA	LITTLE R	[illegible]		123501	1235
[illegible]/1984	AZUSA	CA	SAN GABRIEL	[illegible]		[illegible]	[illegible]
10/10/1984	TWIN FALLS	ID	SNAKE	[illegible]		1801	18
[illegible]/10/1985	BUZZARD ROOST	SC	SALUDA	15000		126701	1267
03/31/1985	KINGS RIVER	CA	KINGS N FK	151?63		198802	1988
03/31/1985	KINGS RIVER	CA	KINGS N FK	75[illegible]		198801	1988
[illegible]/1986	WALLOWA FALLS	OR	WALLOWA E FK	1100		30801	308
11/30/1986	POOLE	CA	LEEVINING CR	10000		138801	1388
11/30/1986	RUSH CREEK	CA	RUSH CR	[illegible]		138901	1389
11/30/1986	LUNDY	CA	MILL CR	3000		139001	1390
11/30/1986	BISHOP CREEK	CA	BISHOP CR	21875		139401	1394
11/30/1986	BISHOP CREEK	CA	BISHOP CR			139402	1394
11/30/1986	BISHOP CREEK	CA	BISHOP CR			139404	1394
11/30/1986	BISHOP CREEK	CA	BISHOP CR			139403	1394
12/31/1986	TOMAHAWK	WI	WISCONSIN	[illegible]		194001	1940
10/[illegible]/1987	SUTHERLAND	NE	CANAL FROM N & S PLATTE	26100		183501	1835
[illegible]/1987	CENTRAL NEBRASKA	NE	CANAL FROM PLATTE	19000		141701	1417
[illegible]/1987	CENTRAL NEBRASKA	NE	CANAL FROM PLATTE	18000		141702	1417
[illegible]/1987	CENTRAL NEBRASKA	NE	NORTH PLATTE	[illegible]		141704	1417
[illegible]/1987	CENTRAL NEBRASKA	NE	PLATTE&CANAL FROM PLATTE	19000		141705	1417
12/31/1987	ASHTON & ST ANTHONY	ID	HENRYS FORK OF SNAKE RI	[illegible]		238101	2381
12/31/1987	WILLIAMS	ME	KENNEBEC	13000		233501	2335

12/31/1987	WEST BUXTON	ME	SACO	2625	253101	2531
12/31/1987	MILLVILLE	WV	SHENANDOAH	2940	256301	2567
12/31/1987	CATARACT	ME	SACO	6650	252801	2527
12/31/1987	ASHTON & ST ANTHONY	ID	HENRYS FORK OF SNAKE RI	5800	239101	2391
12/31/1987	MATTACEUNK	ME	PENOBSCOT	19200	252001	2521
12/31/1987	WEAZIE	ME	PENOBSCOT	8400	247371	2477
12/31/1987	PIEDMONT	SC	SALUDA	1700	242801	2425
12/31/1987	EASTMAN FALLS	NH	PEMIGEWASSET	9630	245701	2457
12/31/1987	GRESHAM	WI	RED	275	246601	2466
12/31/1987	HAWKS NEST & GLEN FERRIS	WV	KANAWHA	5450	251201	2512
12/31/1987	HAWKS NEST & GLEN FERRIS	WV	NEW	12000	251202	2512
12/31/1987	[illegible] RIVER	NY	[illegible]	1500	259771	2597
12/31/1987	ELLSWORTH-GRAHAM	ME	UNION		272702	2721
12/31/1987	ELLSWORTH-GRAHAM	ME	UNION	8900	272701	2727
12/31/1987	KANSAS RIVER	KS	KANSAS	1852	264401	2644
12/31/1987	LAMOILLE RIVER	VT	LAMOILLE	2881	222504	2225
12/31/1987	W.T BUXTON	ME	SACO RIVER	6 00	253102	2531
12/31/1987	GRANDFATHER FALLS	WI	WISCONSIN	17247	196671	1966
12/31/1987	LAMOILLE RIVER	VT	LAMOILLE	5 00	222501	2221
12/31/1987	LAMOILLE RIVER	VT	LAMOILLE	6 00	222502	2207
12/31/1987	LAMOILLE RIVER	VT	LAMOILLE	3 00	222503	2225
12/31/1988	HOLYOKE NO [illegible]	MA	CONNECTICUT CANAL	[illegible]	258701	2587
05/24/1988	MORRIS SHEPPARD	TX	BRAZOS	22500	149701	1497
06/30/1988	FLINT CREEK	MT	FLINT CR	1130	147701	1477
[illegible]	SALMON CREEK & ANNEX CREEK	AK	ANNEX CR	3500	257702	2577
[illegible]	SALMON CREEK & ANNEX CREEK	AK	SALMON CR UPPER	9527	[illegible]	[illegible]
[illegible]	[illegible] SPRUCE	[illegible]	[illegible] SPRUCE BAY	7[illegible]	183201	1832
[illegible]	[illegible]	[illegible]	FOX RIVER	25[illegible]	183201	1832
10/31/1988	[illegible]	[illegible]	FOX	2400	267701	2677
10/31/1988	[illegible]	[illegible]	FOX	36[illegible]	267702	2677
10/31/1988	[illegible]	WI	FOX	2100	267701	2677
12/31/1988	VICTORIA	MI	ONTONAGON		186601	1866
12/31/1988	VICTORIA	MI	W. BRANCH ONTONAGON	12000	186602	1866
12/31/1988	VICTORIA	MI	W. BRANCH ONTONAGON		186603	1866
12/31/1988	PENSACOLA	OK	GRAND NEOSHO	[illegible]	149401	1494
12/31/1988	LYONS FALLS	NY	BLACK	2 00	256802	2568
12/31/1988	LYONS FALLS	NY	BLACK	1 50	256801	2568
12/31/1988	VICTORIA	MI	W. BRANCH ONTONAGON		186604	1866
12/31/1988	PROSPECT NO [illegible]	[illegible]	[illegible]	7200	[illegible]	[illegible]
12/31/1988	LYONS FALLS	NY	BLACK	5 [illegible]	256803	2568

HYDROELECTRIC PROJECTS UNDER LICENSE
AS OF May 16, 1985

The column headings are defined as follows:

P N	FERC Project Number
PROJ NAME	Project Name
OWNER	Name of Licensee
LT	License Type (3 alphanumeric characters) a. The first letter is an "M", "N", or "Y" M - Major License (over 1,500 kW) N - Minor License (up to and including 1,500 kW) Y - Minor Part b. The second letter is an "O" indicating the license is in effect c. The third letter is an "N" or "P" N - Non-public licensee P - Public licensee (state or municipality)
INST-kW 1/	Licensed and already installed capacity in kW
AUTH-kW 1/	Licensed and under construction capacity in kW
ST	State
STREAM	Name of stream where project is located
ISS-DT	Date of issuance of present license
EXP-DT	Expiration date of present license (If the expiration date has passed, the project is operating under an annual license.)

An "R" in the left margin of the table indicates that the project has been relicensed

1/ Multiple entries in the INST-kW or AUTH-kW columns for any project indicate that there are multiple developments in that project. The total authorized project licensed capacity is the sum of all entries in the INST-kW and AUTH-kW columns for that project.

* P N * * *	PROJ NAME	OWNER	LT	INST KW	AUTH KW	ST	STREAM	ISS DT	EXP DT
* 5	KERR	MONTANA POWER CO THE	MON	168000		MT	FLATHEAD	05/23/1930	05/22/1980
* R 13	GREEN ISLAND	NIAGARA MOHAWK POWER CORP	MON	6000		NY	HUDSON	02/07/1977	03/02/2011
* 18	TWIN FALLS	IDAHO POWER CO	MON	8438		ID	SNAKE	06/11/1934	06/10/1984
* R 20	SODA	UTAH POWER & LIGHT CO	MON	14000		ID	BEAR	07/29/1980	07/04/2003
* R 67	BIG CREEK NO 2A & 8	SOUTHERN CALIFORNIA EDISON CO	MON	58500		CA	SAN JOAQUIN	08/09/1978	02/28/2009
* 67	BIG CREEK NO 2A & 8	SOUTHERN CALIFORNIA EDISON CO	MON		200000	CA	TUNNEL NO 7	08/09/1978	02/28/2009
* 67	BIG CREEK NO 2A & 8	SOUTHERN CALIFORNIA EDISON CO	MON	80000		CA	SAN JOAQUIN	08/09/1978	02/28/2009
* R 77	POTTER VALLEY	PACIFIC GAS AND ELEC CO	MON	9040		CA	RUSSIAN E FK	10/04/1983	09/30/2033
* R 82	MITCHELL	ALABAMA POWER CO	MON	72500	97500	AL	COOSA	11/26/1975	07/31/2007
* R 96	KERCKHOFF	PACIFIC GAS AND ELEC CO	MON	34080		CA	SAN JOAQUIN	11/08/1979	11/30/2022
* 96	KERCKHOFF	PACIFIC GAS AND ELEC CO	MON	140000		CA	SAN JOAQUIN	11/08/1979	11/30/2022
* R 120	BIG CREEK NO 3&6	SOUTHERN CALIFORNIA EDISON CO	MON	141500		CA	SAN JOAQUIN	09/07/1977	02/28/2009
* R 135	OAK GROVE	PORTLAND GENERAL ELEC CO	MON	51000		OR	CLACKAMAS	04/09/1980	08/31/2006
* 137	MOKELUMNE	PACIFIC GAS AND ELEC CO	MON	89100		CA	MOKELUMNE N FK	11/24/1925	11/23/1975
* 137	MOKELUMNE	PACIFIC GAS AND ELEC CO	MON	13600		CA	MOKELUMNE N FK	11/24/1925	11/23/1975
* 137	MOKELUMNE	PACIFIC GAS AND ELEC CO	MON	51000		CA	MOKELUMNE N FK	11/24/1925	11/23/1975
* 137	MOKELUMNE	PACIFIC GAS AND ELEC CO	MON	9350		CA	MOKELUMNE N FK	11/24/1925	11/23/1975
* 137	MOKELUMNE	PACIFIC GAS AND ELEC CO	MON	29700		CA	MOKELUMNE N FK	11/24/1925	11/23/1975
* R 175	BALCH NO. 1&2	PACIFIC GAS AND ELEC CO	MON	133200		CA	KINGS N FK	04/18/1980	04/30/2026
* 176	BEAR VALLEY & LAKE WOHLFORD	ESCONDIDO MUTUAL WATER CO	MON			CA	ESCONDIDO CR	06/25/1924	06/24/1974
* 176	BEAR VALLEY & LAKE WOHLFORD	ESCONDIDO MUTUAL WATER CO	MON	520		CA	ESCONDIDO CR	06/25/1924	06/24/1974
* 176	BEAR VALLEY & LAKE WOHLFORD	ESCONDIDO MUTUAL WATER CO	MON	1500		CA	ESCONDIDO CR	06/25/1924	06/24/1974
* R 178	KERN CANYON	PACIFIC GAS AND ELEC CO	MON	8480		CA	KERN	09/07/1979	04/30/2005
* R 184	EL DORADO	PACIFIC GAS AND ELEC CO	MON	20000		CA	AMERICAN RIVER S FK	12/11/1980	02/23/2002
* 190	UINTA	MOON LAKE ELECTRIC ASSN	MON	1200		UT	UINTA	08/07/1931	06/30/1980
* R 199	SANTEE-COOPER	SOUTH CAROLINA PUB SERV AUTH	MOP	1920		SC	SANTEE	05/09/1979	03/31/2006
* 199	SANTEE-COOPER	SOUTH CAROLINA PUB SERV AUTH	MOP	132600		SC	SANTEE&COOPER	05/09/1979	03/31/2006
* R 201	BLIND SLOUGH	PETERSBURG CITY OF	NOP	2000		AK	CRYSTAL CR	06/04/1980	11/12/2004
* R 233	PIT	PACIFIC GAS AND ELEC CO	MON	74250		CA	PIT	02/26/1981	10/31/2003
* 233	PIT	PACIFIC GAS AND ELEC CO	MON	140500		CA	PIT	02/26/1981	10/31/2003
* 233	PIT	PACIFIC GAS AND ELEC	MON	90000		CA	PIT	02/26/1981	10/31/2003

		CO							
• R 271	CARPENTER & REMMEL	ARKANSAS PWR AND LT CO	MON	10000		AR	OUACHITA	07/02/1980	02/28/2003
• 271	CARPENTER & REMMEL	ARKANSAS PWR AND LT CO	MON	56000		AR	OUACHITA	07/02/1980	02/28/2003
• R 287	DAYTON	HYDRO OP ONE ASSOCIATES	MON	3680		IL	FOX	08/17/1979	04/10/2004
• R 289	OHIO FALLS	LOUISVILLE GAS AND E L CO	MON	80320		KY	OHIO	09/29/1981	11/10/2005
• 298	KAWEAH	SOUTHERN CALIFORNIA EDISON CO	YON	2250		CA	KAWEAH	08/07/1924	08/06/1974
• 298	KAWEAH	SOUTHERN CALIFORNIA EDISON CO	YON	2800		CA	KAWEAH	08/07/1924	08/06/1974
• 298	KAWEAH	SOUTHERN CALIFORNIA EDISON CO	YON	1800		CA	KAWEAH	08/07/1924	08/06/1974
• R 308	WALLOWA FALLS	PACIFIC POWER & LIGHT CO	NON	1100		OR	WALLOWA E FK	03/29/1976	02/28/1986
• R 309	PINEY	PENN ELEC CO	MON	28800		PA	CLARION	06/29/1979	10/12/2002
• R 344	SAN GORGONIO NO 1 & NO 2	SOUTHERN CALIFORNIA EDISON CO	MON	1500		CA	SAN GORGONIO CR	05/18/1983	04/26/2003
• 344	SAN GORGONIO NO 1 & NO 2	SOUTHERN CALIFORNIA EDISON CO	MON	750		CA	SAN GORGONIO CR	05/18/1983	04/26/2003
• R 346	BLANCHARD	MINNESOTA POWER & LIGHT CO	MON	12000		MN	MISSISSIPPI	05/20/1980	08/24/2003
• R 349	MARTIN DAM	ALABAMA POWER CO	MON	60000	154200	AL	TALLAPOOSA	05/11/1978	06/08/2013
• R 362	TWIN CITY	FORD MOTOR CO	MON	17900		MN	MISSISSIPPI	07/02/1980	06/06/2003
• R 372	LOWER TULE	SOUTHERN CALIFORNIA EDISON CO	MON	2000		CA	TULE	05/10/1978	06/14/2000
• R 382	BOREL	SOUTHERN CALIFORNIA EDISON CO	MON	9200		CA	KERN	09/07/1979	02/28/2005
• R 400	AMES & TACOMA	COLORADO-UTE ELE ASSN INC	MON	8000	14000	CO	ANIMAS	09/01/1981	06/30/2010
• 400	AMES & TACOMA	COLORADO-UTE ELE ASSN INC	MON	3600		CO	SAN MIGUEL LAKE FK	09/01/1981	06/30/2010
• R 401	MOTTVILLE	MICHIGAN POWER CO	MON	1680		MI	ST JOSEPH	02/28/1978	09/18/2003
• R 405	CONOWINGO	SUSQ POWER	MON	512000		MD	SUSQUEHANNA	08/14/1980	09/01/2006
• R [illegible]	KETCHIKAN LAKES	KETCHIKAN CITY OF	MOP	4200		AK	KETCHIKAN CR	06/30/1982	06/30/2000
• 432	WALTERS	CAROLINA POWER AND LT CO	MON	108000		NC	PIGEON	11/23/1926	11/22/1976
• R 459	OSAGE	UNION ELECTRIC CO	MON	176200		MO	OSAGE	04/09/1981	02/28/2006
• 460	CUSHMAN NO 1 & NO 2	TACOMA CITY OF	YOP	81000		WA	SKOKOMISH N FK	06/03/1924	06/02/1974
• 460	CUSHMAN NO 1 & NO 2	TACOMA CITY OF	YOP	43200		WA	SKOKOMISH N FK	06/03/1924	06/02/1974
• R 469	WINTON	MINNESOTA POWER & LIGHT CO	MON	4000		MN	KAWISHIWI	03/13/1981	10/31/2003
• R 472	ONEIDA	UTAH POWER & LIGHT CO	MON	30000		ID	BEAR	05/01/1981	06/30/2000
• R 477	BULL RUN	PORTLAND GENERAL ELEC CO	MON	21000		OR	BULL RUN	05/23/1980	11/16/2004
• R 485	BARTLETTS FERRY	GEORGIA POWER CO	MON	100000	65000	GA	CHATTAHOOCHEE	04/13/1978	12/14/2014
• R 487	WALLENPAUPACK	PENN POWER & LIGHT CO	MON	40000		PA	LACKAWAXEN	06/19/1980	09/30/2004
• R 503	SWAN FALLS	IDAHO POWER CO	MON	10400	14600	ID	SNAKE	12/22/1982	06/30/2010
• R 516	SALUDA	SOUTH CAROINA ELEC & GAS CO	MON	202600		SC	SALUDA	06/01/1984	08/31/2007
• 539	LOCK NO 7	KENTUCKY UTILITIES CO	MON	2040		KY	KENTUCKY	08/19/1926	08/18/1976
• 553	SKAGIT RIVER	SEATTLE DEPT OF LIGHTING	MOP	360000		WA	SKAGIT	10/28/1927	10/27/1977
• 553	SKAGIT RIVER	SEATTLE DEPT OF LIGHTING	MOP	122400		WA	SKAGIT	10/28/1927	10/27/1977

•	553	SKAGIT RIVER	SEATTLE DEPT OF LIGHTING	MOP	150000		WA	SKAGIT	10/28/1927	10/27/1977
•	588	GLINES CANYON	CROWN ZELLERBACH CORP	MON	12050		WA	ELWHA	06/04/1926	06/03/1976
•	596	OLMSTED	UTAH POWER & LIGHT CO	YON	10300		UT	PROVO RIVER	10/21/1925	10/20/1975
•R	597	STAIRS	UTAH POWER & LIGHT CO	NON	1000		UT	BIG COTTONWOOD CREEK	05/21/1977	06/30/2000
•R	606	KILARC & COW CREEK	PACIFIC GAS AND ELEC CO	MON	1440		CA	COW CREEK SOUTH	02/08/1980	03/27/2007
•	606	KILARC & COW CREEK	PACIFIC GAS AND ELEC CO	MON	3000		CA	COW CREEK OLD	02/08/1980	03/27/2007
•R	618	JORDAN	ALABAMA POWER CO	MON	100000		AL	COOSA	10/27/1980	07/31/2007
•R	619	BUCKS CREEK	PACIFIC GAS AND ELEC CO	MON	33000		CA	BUCKS & GRIZZLY CR	12/19/1974	10/31/2004
•R	620	CHIGNIK	ALASKA PACKERS ASSN INC	NON	50		AK	INDIAN CR	04/11/1979	10/04/2005
•R	632	LOWER MONROE	MONROE CITY CORP	NOP	100		UT	MONROE CR	11/21/1978	02/14/2006
•R	637	CHELAN	CHELAN COUNTY PUD NO 1	MOP	48000		WA	CHELAN	05/12/1981	03/31/2004
•R	659	CRISP COUNTY	CRISP COUNTY POWER COMM	MOP	15200		GA	FLINT	08/14/1980	08/09/2008
•	662	PINEDALE	PINEDALE POWER AND LIGHT CO	MON	0		WY	PINE CR	08/27/1943	02/11/1992
•	663	RIO BLANCO	PUERTO RICO WTR RES AUTH	MON	5000		PR	HICACO	11/07/1928	11/06/1978
•R	693	HIGHLANDS	HIGHLANDS TOWN OF	NOP	750		NC	CULLASAJA RIVER	07/29/1981	07/31/2016
•R	696	AMERICAN FORK CREEK	UTAH POWER & LIGHT CO	NON	950		UT	AMERICAN FORK CR	11/24/1975	10/31/2000
•	710	SHAWANO	WISCONSIN POWER AND LT CO	MON	640		WI	WOLF	07/20/1927	07/19/1977
•R	719	TRINITY	TWO RIVERS INC	NON	240		WA	PHELPS CR	07/18/1979	10/31/2002
•R	733	OURAY	COLORADO-UTE ELE ASSN INC	NON	432		CO	UNCOMPAHGRE	01/30/1980	04/12/2010
•R	739	CLAYTOR	APPALACHIAN POWER CO	MON	75000		VA	NEW	08/20/1980	06/30/2011
•R	785	CALKINS BRIDGE	CONSUMER'S POWER CO	MON	2550		MI	KALAMAZOO	09/10/1980	04/10/2010
•R	803	DE SABLA-CENTERVILLE	PACIFIC GAS AND ELEC CO	MON	18450		CA	BUTTE CREEK	06/12/1980	10/11/2009
•	803	DE SABLA-CENTERVILLE	PACIFIC GAS AND ELEC CO	MON	6400		CA	BUTTE CREEK	06/12/1980	10/11/2009
•	803	DE SABLA-CENTERVILLE	PACIFIC GAS AND ELEC CO	MON		1660	CA	BUTTE CREEK	06/12/1980	10/11/2009
•	848	WELLS RURAL	WELLS RURAL ELECTRIC CO	YON	0		NV	TROUT CR	12/14/1928	12/13/1973
•R	906	CUSHAW RES	VIRGINIA ELECTRIC & POWER CO	MON	7500		VA	JAMES	09/30/1980	06/16/2008
•R	925	OTTUMWA	OTTUMWA CITY OF	MOP	3000		IA	DES MOINES	03/24/1982	04/30/2008
•R	935	MERWIN	PACIFIC POWER & LIGHT CO	MON	136000		WA	LEWIS	10/06/1983	12/11/2009
•R	943	ROCK ISLAND	CHELAN COUNTY PUD NO 1	MOP	622500		WA	COLUMBIA	05/13/1981	01/31/2020
•R	946	HYRUM	HYRUM CITY CORP	NOP	400		UT	BLACKSMITH FORK	03/03/1981	04/30/2008
•R	1005	BOULDER CANYON	PUBLIC SERVICE CO OF COLO	MON	20000		CO	BOULDER CR MIDDLE	04/28/1981	08/31/2009
R	1025	SAFE HARBOR	SAFE HARBOR WTR PWR CORP	MON	417500	187500	PA	SUSQUEHANNA	08/14/1980	04/22/2030
R	1051	SKAGWAY DEWEY	ALASKA POWER & TEL CO	NON	340		AK	DEWEY LAKES	04/30/1980	08/29/2007
•	1061	PHOENIX	PACIFIC GAS AND ELEC CO	YON	1800		CA	STANISLAUS S FK	12/26/1930	12/25/1980

*R1121	MILLSEAT CREEK & BATTLE CREEK	PACIFIC GAS AND ELEC CO	MON	12150	CA	BATTLE CR	08/13/1976	07/31/2026
* 1121	MILLSEAT CREEK & BATTLE CREEK	PACIFIC GAS AND ELEC CO	MON	7650	CA	BATTLE CR S FK	08/13/1976	07/31/2026
* 1121	MILLSEAT CREEK & BATTLE CREEK	PACIFIC GAS AND ELEC CO	MON	6750	CA	BATTLE CR S FK	08/13/1976	07/31/2026
* 1121	MILLSEAT CREEK & BATTLE CREEK	PACIFIC GAS AND ELEC CO	MON	9550	CA	MILLSEAT CR	08/13/1976	07/31/2026
*R1175	LONDON & MARMET	KANAWHA VALLEY POWER CO	MON	14400	WV	KANAWHA	09/23/1983	01/31/2014
* 1175	LONDON & MARMET	KANAWHA VALLEY POWER CO	MON	14400	WV	KANAWHA	09/23/1983	01/31/2014
* 1212	LAKE HILL	EPHRAIM CITY OF	NOP	0	UT	MISC. MOUNTAIN SPRINGS	08/24/1933	08/23/1983
* 1212	LAKE HILL	EPHRAIM CITY OF	NOP	205	UT	COTTONWOOD CR	08/24/1933	08/23/1983
*R1218	FLINT RIVER RESERVOIR	GEORGIA POWER CO	MON	5400	GA	FLINT	12/27/1979	09/30/2001
* 1235	RADFORD	RADFORD CITY OF	NOP	800	VA	LITTLE CR	12/07/1933	12/06/1983
* 1250	AZUSA	PASADENA CITY OF	MOP	3000	CA	SAN GABRIEL	05/18/1934	05/30/1984
*R1256	COLUMBUS & MONROE	LOUP RIVER PUB PWR DIST	MOP	7200	NE	LOUP & CANAL FROM LOUP	12/29/1982	04/15/2014
* 1256	COLUMBUS & MONROE	LOUP RIVER PUB PWR DIST	MOP	40500	NE	LOUP & CANAL FROM LOUP	12/29/1982	04/15/2014
* 1267	BUZZARD ROOST	DUKE POWER CO	MON	15000	SC	SALUDA	02/11/1935	02/10/1985
*R1273	PAROWAN	PAROWAN CITY CORPORATION	NOP	600	UT	CENTER CR	09/15/1977	12/30/2004
*R1290	WINFIELD	KANAWHA VALLEY POWER CO	MON	14760	WV	KANAWHA	09/26/1983	01/31/2014
* 1333	TULE RIVER	PACIFIC GAS AND ELEC CO	MON	4800	CA	TULE N FK & M FK	05/01/1939	04/30/1989
* 1354	CRANE VALLEY	PACIFIC GAS AND ELEC CO	MON	3220	CA	WILLOW CR N FK	05/01/1939	04/30/1989
* 1354	CRANE VALLEY	PACIFIC GAS AND ELEC CO	MON	340	CA	WILLOW CR N FK	05/01/1939	04/30/1989
* 1354	CRANE VALLEY	PACIFIC GAS AND ELEC CO	MON	2880	CA	WILLOW CR N FK	05/01/1939	04/30/1989
* 1354	CRANE VALLEY	PACIFIC GAS AND ELEC CO	MON	4000	CA	WILLOW CR N FK	05/01/1939	04/30/1989
* 1354	CRANE VALLEY	PACIFIC GAS AND ELEC CO	MON	880	CA	WILLOW CR N FK	05/01/1939	04/30/1989
* 1388	POOLE	SOUTHERN CALIFORNIA EDISON CO	MON	10000	CA	LEEVINING CR	08/25/1939	11/30/1986
* 1389	RUSH CREEK	SOUTHERN CALIFORNIA EDISON CO	MON	8400	CA	RUSH CR	05/01/1939	11/30/1986
* 1390	LUNDY	SOUTHERN CALIFORNIA EDISON CO	MON	3000	CA	MILL CR	10/02/1939	11/30/1986
* 1394	BISHOP CREEK	SOUTHERN CALIFORNIA EDISON CO	MON	21875	CA	BISHOP CR	09/03/1940	11/30/1986
* 1394	BISHOP CREEK	SOUTHERN CALIFORNIA EDISON CO	MON	0	CA	BISHOP CR	09/03/1940	11/30/1986
* 1394	BISHOP CREEK	SOUTHERN CALIFORNIA EDISON CO	MON	0	CA	BISHOP CR	09/03/1940	11/30/1986
* 1394	BISHOP CREEK	SOUTHERN CALIFORNIA EDISON CO	MON	0	CA	BISHOP CR	09/03/1940	11/30/1986
* 1403	NARROWS	PACIFIC GAS AND ELEC CO	MON	9350	CA	YUBA	08/01/1941	07/31/1991
R1413	PONDS LODGE	ISLAND PARK RESORTS INC	NON	200	ID	BUFFALO	03/14/1980	10/31/2004
* 1417	CENTRAL NEBRASKA	CENTRAL NEB PUB PWR & I D	MOP	50000	NE	NORTH PLATTE	07/30/1937	07/29/1987

* 1417	CENTRAL NEBRASKA	CENTRAL NEB PUB PWR & I D	MOP	18000		NE	PLATTE&CANAL FROM PLATTE	07/30/1937	07/29/1987
* 1417	CENTRAL NEBRASKA	CENTRAL NEB PUB PWR & I D	MOP	18000		NE	CANAL FROM PLATTE	07/30/1937	07/29/1987
* 1417	CENTRAL NEBRASKA	CENTRAL NEB PUB PWR & I D	MOP	18000		NE	CANAL FROM PLATTE	07/30/1937	07/29/1987
* 1432	DRY SPRUCE	C W C FISHERIES	NON	75		AK	DRY SPRUCE BAY	05/20/1971	10/26/1988
* 1473	FLINT CREEK	MONTANA POWER CO THE	MON	1100		MT	FLINT CR	09/03/1940	06/30/1988
* 1490	MORRIS SHEPPARD	BRAZOS RIVER AUTHORITY	MOP	22500		TX	BRAZOS	05/25/1938	05/24/1988
* 1494	PENSACOLA	GRAND RIVER DAM AUTHORITY	MOP	86400		OK	GRAND NEOSHO	07/26/1939	12/31/1988
* 1510	KAUKAUNA	KAUKAUNA CITY OF	MOP	4800		WI	FOX	04/01/1939	03/31/1989
* 1517	UPPER MONROE	MONROE CITY CORP	NOP	125		UT	MONROE CR	07/01/1940	06/30/1990
* 1553	FALLS CREEK	NEW JERSEY ZINC CO	NON	330		CO	FALL CR	07/13/1977	06/27/2000
* ~~1576~~	MOUNTAIN SPRINGS	MANTI CITY LIGHT & POWER	MOP	400		UT	MANTI CR	09/03/1940	09/02/1990
* 1651	SWIFT CREEK	LOWER VALLEY PWR AND LT CO	MON	0	750	WY	SWIFT CR	12/01/1942	11/30/1992
* 1651	SWIFT CREEK	LOWER VALLEY PWR AND LT CO	MON	0	800	WY	SWIFT CR	12/01/1942	11/30/1992
* 1715	SPRING CREEK	SPRINGVILLE CITY OF	YOP	100		UT	SPRING CREEK	06/23/1941	06/22/1991
* 1744	WEBER	UTAH POWER & LIGHT CO	MON	3465		UT	WEBER	05/14/1948	06/30/1970
* 1746	LEIDY CREEK	CORD VIRGINIA KIRK	NON	200		NV	LEIDY CR	05/16/1966	09/30/1991
1759	MICHIGAMME	WISCONSIN ELECTRIC PWR CO	MON	1800		MI	MICHIGAMME	11/05/1974	12/31/2001
* 1759	MICHIGAMME	WISCONSIN ELECTRIC PWR CO	MON	6140		MI	MENOMINEE	11/05/1974	12/31/2001
* 1759	MICHIGAMME	WISCONSIN ELECTRIC PWR CO	MON	15000		MI	MICHIGAMME	11/05/1974	12/31/2001
* 1773	YELLOWSTONE	MOON LAKE ELECTRIC ASSN	MON	900		UT	YELLOWSTONE CR	04/01/1943	03/31/1993
* 1835	SUTHERLAND	NEBRASKA PUB PWR DIST	MOP	26100		NE	CANAL FROM N & S PLATTE	04/13/1943	06/30/1987
* 1855	BELLOWS FALLS	NEW ENGLAND POWER CO	MON	40800		NH	CONNECTICUT	08/03/1979	04/30/2018
* ~~1858~~	BEAVER CITY	BEAVER CITY CORPORATION	MOP	625		UT	BEAVER	07/31/1943	07/30/1993
* 1862	NISQUALLY RIVER	TACOMA CITY OF	MOP	64000		WA	NISQUALLY	11/27/1944	12/31/1993
* 1862	NISQUALLY RIVER	TACOMA CITY OF	MOP	50000		WA	NISQUALLY	11/27/1944	12/31/1993
* 1864	VICTORIA	UPPER PENINSULA POWER CO	MON			MI	S. BRANCH ONTONAGON	10/05/1953	12/31/1988
* 1864	VICTORIA	UPPER PENINSULA POWER CO	MON			MI	W. BRANCH ONTONAGON	10/05/1953	12/31/1988
* 1864	VICTORIA	UPPER PENINSULA POWER CO	MON	12000		MI	W BRANCH ONTONAGON	10/05/1953	12/31/1988
* 1864	VICTORIA	UPPER PENINSULA POWER CO	MON	0		MI	ONTONAGON	10/05/1953	12/31/1988
1869	THOMPSON FALLS	MONTANA POWER CO THE	MON	30000		MT	CLARK FK	12/28/1979	12/31/2015
1881	HOLTWOOD	PENN POWER & LIGHT CO	MON	107200		PA	SUSQUEHANNA	08/14/1980	09/01/2004
1888	YORKHAVEN	METROPOLITAN EDISON CO	MON	19600		PA	SUSQUEHANNA	08/14/1980	09/01/2004
1889	TURNERS FALLS	WESTERN MASS ELECTRIC CO	MON	51000		MA	CONNECTICUT RIVER	05/05/1980	04/30/2018
* 1889	TURNERS FALLS	WESTERN MASS ELECTRIC CO	MON	4840		MA	CONNECTICUT CANAL	05/05/1980	04/30/2018
* 1892	WILDER	NEW ENGLAND POWER CO	MON	32400		NH	CONNECTICUT	12/10/1979	04/30/2018
* 1893	MERRIMACK RIVER	PUBLIC SERVICE CO OF N H	MON	5600	5900	NH	MERRIMACK RIVER	05/08/1980	12/31/2005

* 1893	MERRIMACK RIVER	PUBLIC SERVICE CO OF N H	MON	1600	NH	MERRIMACK RIVER	05/08/1980	12/31/2005
* 1893	MERRIMACK RIVER	PUBLIC SERVICE CO OF N H	MON	16000	NH	MERRIMACK	05/08/1980	12/31/2005
*R1894	PARR SHOALS	SOUTH CAROLINA ELEC & GAS CO	MON	518400	SC	BROAD	08/28/1974	06/30/2020
* 1894	PARR SHOALS	SOUTH CAROLINA ELEC & GAS CO	MON	14880	SC	BROAD	08/28/1974	06/30/2020
*R1895	COLUMBIA	SOUTH CAROLINA ELEC & GAS	MON	10600	SC	BROAD	04/28/1980	06/30/2000
*R1904	VERNON	NEW ENGLAND POWER CO	MON	24400	NH	CONNECTICUT	06/25/1979	04/30/2018
* 1922	BEAVER FALLS CREEK	KETCHIKAN CITY OF	MOP	2100	AK	SILVIS LAKE	05/01/1945	04/30/1995
* 1922	BEAVER FALLS CREEK	KETCHIKAN CITY OF	MOP	4400	AK	SILVIS LAKE	05/01/1945	04/30/1995
* 1922	BEAVER FALLS CREEK	KETCHIKAN CITY OF	MOP	1200	AK	SILVIS LAKE	05/01/1945	04/30/1995
* 1927	NORTH UMPQUA	PACIFIC POWER & LIGHT CO	MON	0	OR	NORTH UMPQUA	01/30/1947	01/29/1997
* 1927	NORTH UMPQUA	PACIFIC POWER & LIGHT CO	MON	33000	OR	NORTH UMPQUA	01/30/1947	01/29/1997
* 1927	NORTH UMPQUA	PACIFIC POWER & LIGHT CO	MON	15000	OR	CLEARWATER	01/30/1947	01/29/1997
* 1927	NORTH UMPQUA	PACIFIC POWER & LIGHT CO	MON	26000	OR	CLEARWATER	01/30/1947	01/29/1997
* 1927	NORTH UMPQUA	PACIFIC POWER & LIGHT CO	MON	42501	OR	NORTH UMPQUA	01/30/1947	01/29/1997
* 1927	NORTH UMPQUA	PACIFIC POWER & LIGHT CO	MON	11000	OR	NORTH UMPQUA	01/30/1947	01/29/1997
* 1927	NORTH UMPQUA	PACIFIC POWER & LIGHT CO	MON	11250	OR	NORTH UMPQUA	01/30/1947	01/29/1997
* 1927	NORTH UMPQUA	PACIFIC POWER & LIGHT CO	MON	18000	OR	NORTH UMPQUA	01/30/1947	01/29/1997
* 1930	KERN RIVER NO 1	SOUTHERN CALIFORNIA EDISON CO	MON	24992	CA	KERN	06/01/1950	04/30/1996
* 1932	LYTLE CREEK	SOUTHERN CALIFORNIA EDISON CO	MON	400	CA	LYTLE CR	08/09/1946	04/30/1996
* 1933	SANTA ANA NO 1 & NO 2	SOUTHERN CALIFORNIA EDISON CO	MON	800	CA	SANTA ANA	01/03/1947	04/30/1996
* 1933	SANTA ANA NO 1 & NO 2	SOUTHERN CALIFORNIA EDISON CO	MON	3200	CA	SANTA ANA	01/03/1947	04/30/1996
* 1934	MILL CREEK NO 2 & NO 3	SOUTHERN CALIFORNIA EDISON CO	MON	200	CA	MILL CR	08/09/1946	04/30/1996
* 1934	MILL CREEK NO 2 & NO 3	SOUTHERN CALIFORNIA EDISON CO	MON	1800	CA	MILL CR	08/09/1946	04/30/1996
* 1940	TOMAHAWK	WISCONSIN PUB SERV CORP	MON	2600	WI	WISCONSIN	09/29/1948	12/31/1986
* 1951	SINCLAIR	GEORGIA POWER CO	MON	45000	GA	OCONEE	06/01/1948	08/31/1997
* 1952	EAGLE PASS	MAVERICK CO W C I D NO1	MOP	0	TX	RIO GRANDE	10/24/1958	06/30/1996
* 1953	DU BAY	CONSOLIDATED WATER PWR CO	MON	7200	WI	WISCONSIN	02/04/1952	06/30/1991
R1957	OTTER RAPIDS	WISCONSIN PUB SERV CORP	NON	700	WI	WISCONSIN	08/08/1975	06/30/1990
* 1960	FLAMBEAU	DAIRYLAND POWER COOP	MON	15000	WI	FLAMBEAU	03/14/1951	02/28/2001
* 1962	CRESTA & ROCK CREEK	PACIFIC GAS AND ELEC CO	MON	67400	CA	FEATHER N FK	10/01/1947	09/30/1982
* 1962	CRESTA & ROCK CREEK	PACIFIC GAS AND ELEC CO	MON	113400	CA	FEATHER N FK	10/01/1947	09/30/1982
* 1966	GRANDFATHER FALLS	WISCONSIN PUB SERV CORP	MON	17240	WI	WISCONSIN	02/20/1951	12/31/1987
*R1967	WHITING&PLOVER	KIMBERLY-CLARK CORP	NON	600	WI	WISCONSIN	10/23/1974	06/30/1990
* 1971	HELLS CANYON	IDAHO POWER CO	MON	585000	ID	SNAKE	08/04/1955	07/31/2005

* 1971	HELLS CANYON	IDAHO POWER CO	MON	190000	ID	SNAKE	08/04/1955	07/31/2005
* 1971	HELLS CANYON	IDAHO POWER CO	MON	391500	ID	SNAKE	08/04/1955	07/31/2005
* 1975	BLISS	IDAHO POWER CO	MON	69000	ID	SNAKE	03/01/1948	02/28/1998
*R1979	ALEXANDER	WISCONSIN PUB SERV CORP	MON	4200	WI	WISCONSIN	04/15/1985	06/30/2004
* 1980	BIG QUINNESEC FALLS	WISCONSIN ELECTRIC PWR CO	MON	22700	MI	MENOMINEE	11/04/1949	02/28/1998
* 1981	STILES	OCONTO ELECTRIC COOP	MON	1000	WI	OCONTO	03/13/1915	02/28/2000
* 1982	HOLCOMBE	NORTHERN STATES POWER CO	MON	34000	WI	CHIPPEWA	05/19/1950	06/30/1998
* 1984	PETENWELL CASTLE ROCK	WISCONSIN RIVER POWER CO	MON	15000	WI	WISCONSIN	12/12/1950	01/31/1998
* 1984	PETENWELL CASTLE ROCK	WISCONSIN RIVER POWER CO	MON	20000	WI	WISCONSIN	12/12/1950	01/31/1998
* 1986	ROCK CREEK	CALIF PACIFIC UTIL CO	MON	800	OR	ROCK CR	06/26/1951	06/29/1996
* 1988	KINGS RIVER	PACIFIC GAS AND ELEC CO	MON	150000	CA	KINGS N FK	04/28/1955	03/31/1985
* 1988	KINGS RIVER	PACIFIC GAS AND ELEC CO	MON	75000	CA	KINGS N FK	04/28/1955	03/31/1985
* 1991	MOYIE NO 1 & 2	BONNERS FERRY CITY OF	MOP	3938	ID	MOYIE	04/05/1950	03/31/1998
* 1992	FIRE MOUNTAIN LODGE	TOWNSEND DONALD R	MON	15	CA	FERN SPRINGS	05/06/1980	04/30/2010
* 1994	SNAKE CREEK	HEBER LIGHT AND PWR PLANT	MOP	750	UT	SNAKE CR	12/29/1949	06/30/1998
*R1999	WAUSAU	WISCONSIN PUB SERV CORP	MON	5400	WI	WISCONSIN	04/02/1975	06/30/1995
* 2000	ROBERT MOSES	POWER AUTHORITY OF THE STATE OF NY	MOP	912000	NY	ST LAWRENCE	07/15/1953	10/31/2003
* 2004	CONNECTICUT CANAL	HOLYOKE WATER POWER CO	MON	1600	MA	CONNECTICUT CANAL	09/09/1949	08/31/1999
* 2004	CONNECTICUT CANAL	HOLYOKE WATER POWER CO	MON	225	MA	CONNECTICUT CANAL	09/09/1949	08/31/1999
* 2004	CONNECTICUT CANAL	HOLYOKE WATER POWER CO	MON	2900	MA	CONNECTICUT CANAL	09/09/1949	08/31/1999
* 2004	CONNECTICUT CANAL	HOLYOKE WATER POWER CO	MON	30000	MA	CONNECTICUT	09/09/1949	08/31/1999
* 2004	CONNECTICUT CANAL	HOLYOKE WATER POWER CO	MON	500	MA	CONNECTICUT CANAL	09/09/1949	08/31/1999
* 2004	CONNECTICUT CANAL	HOLYOKE WATER POWER CO	MON	7640	MA	CONNECTICUT CANAL	09/09/1949	08/31/1999
* 2005	DONNELLS & BEARDSLEY	OAKDALE & SOUTH SAN JOAQUIN I D S	MOP	9990	CA	STANISLAUS M FK	05/03/1950	12/31/2004
* 2005	DONNELLS & BEARDSLEY	OAKDALE & SOUTH SAN JOAQUIN I D S	MOP	54000	CA	STANISLAUS M FK	05/03/1950	12/31/2004
* 2009	GASTON & ROANOKE RAPIDS	VIRGINIA ELECTRIC & POWER CO	MON	100000	NC	ROANOKE	02/01/1951	01/31/2001
* 2009	GASTON & ROANOKE RAPIDS	VIRGINIA ELECTRIC & POWER CO	MON	177920	NC	ROANOKE	02/01/1951	01/31/2001
* 2016	MAYFIELD & MOSSYROCK	TACOMA CITY OF	MOP	160000	WA	COWLITZ	11/27/1951	12/31/2001
* 2016	MAYFIELD & MOSSYROCK	TACOMA CITY OF	MOP	300000	WA	COWLITZ	11/27/1951	12/31/2001
* 2017	BIG CREEK NO 4	SOUTHERN CALIFORNIA EDISON CO	MON	84000	CA	SAN JOAQUIN	12/23/1949	02/28/1999
* 2019	MURPHYS	PACIFIC GAS AND ELEC CO	MON	3600	CA	STANSLS N FK DIV	11/06/1946	11/05/1996
* 2030	ROUND BUTTE & PELTON	PORTLAND GENERAL ELEC CO	MON	123000	OR	DESCHUTES	01/01/1952	12/31/2001
* 2030	ROUND BUTTE & PELTON	PORTLAND GENERAL ELEC CO	MON	15000	OR	DESCHUTES RIVER	01/01/1952	12/31/2001
* 2030	ROUND BUTTE & PELTON	PORTLAND GENERAL ELE	MON	247050	OR	DESCHUTES	01/01/1952	12/31/2001

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•	2031	BARTHOLOMEW SPRINGS	SPRINGVILLE CITY OF	YOP	500		UT	BARTHOLOMEW CR	10/01/1952	09/30/2002
•	2032	STRAWBERRY CREEK	LOWER VALLEY PWR AND LT CO	MON	1500		WY	STRAWBERRY CR	05/11/1951	09/30/1999
•	2035	GROSS DAM	DENVER CITY & COUNTY OF	MOP	0		CO	BOULDER CR SOUTH	05/01/1950	04/30/2000
•	2042	BOX CANYON	PEND OREILLE PUD NO 1	MOP	60000		WA	PEND OREILLE	02/05/1952	01/31/2002
•	2047	STEWARTS BRIDGE	NIAGARA MOHAWK POWER CORP	MON	30000		NY	SACANDAGA	06/30/1950	05/31/2000
•	2055	C J STRIKE	IDAHO POWER CO	MON	82500		ID	SNAKE	02/06/1951	11/30/2000
•	2056	ST ANTHONY FALLS	NORTHERN STATES POWER CO	MON	8000		MN	MISSISSIPPI	09/06/1951	12/31/2000
•	2056	ST ANTHONY FALLS	NORTHERN STATES POWER CO	MON	12400		MN	MISSISSIPPI	09/06/1951	12/31/2000
•	2058	CABINET GORGE	WASHINGTON WATER PWR CO	MON	200000		ID	CLARK FORK	01/10/1951	01/09/2001
•	2060	CARRY FALLS RES	NIAGARA MOHAWK POWER CORP	MON	0		NY	RAQUETTE	02/02/1951	01/31/2001
•	2061	LOWER SALMON	IDAHO POWER CO	MON	60900		ID	SNAKE	10/23/1951	12/23/1997
•	2062	ENLOE	OKANAGAN COUNTY P U D	MOP		3720	WA	SIMILKAMEEN RIVER	03/03/1983	02/28/2023
•	2064	WINTER	NORTH CENTRAL POWER CO	MON	625		WI	CHIPPEWA E FK	11/19/1951	11/30/2001
•	2067	TULLOCH	OAKDALE & SOUTH SAN JOAQUIN I D S	MOP	17100		CA	STANISLAUS	08/21/1951	12/31/2004
•	2069	IRVING & CHILDS	LINCOLN NATL LIFE INS CO	MON	5400		AZ	FOSSIL CR	01/01/1945	12/31/1994
•	2069	IRVING & CHILDS	LINCOLN NATL LIFE INS CO	MON	1600		AZ	FOSSIL CR	01/01/1945	12/31/1994
•	2071	YALE	PACIFIC POWER & LIGHT CO	MON	108000		WA	LEWIS	04/25/1951	04/30/2001
•	2072	LOWER PAINT	WISCONSIN ELECTRIC PWR CO	MON	100		MI	PAINT	12/29/1951	12/31/2001
•	2073	MICHIGAMME FALLS	WISCONSIN ELECTRIC PWR CO	MON	9600		MI	MICHIGAMME	10/02/1951	10/31/2001
•	2074	HEMLOCK FALLS	WISCONSIN ELECTRIC PWR CO	MON	2800		MI	MICHIGAMME	10/09/1951	10/31/2001
•	2075	NOXON RAPIDS	WASHINGTON WATER PWR CO	MON	396880		MT	CLARK FK	05/12/1955	04/30/2005
•	2077	FIFTEEN MILE FALL	NEW ENGLAND POWER CO	MON	140400		NH	CONNECTICUT	[illegible]/25/1952	07/31/2001
•	2077	FIFTEEN MILE FALL	NEW ENGLAND POWER CO	MON	140400		NH	CONNECTICUT	01/25/1952	07/31/2001
•	2077	FIFTEEN MILE FALL	NEW ENGLAND POWER CO	MON	10560		NH	CONNECTICUT	01/25/1952	07/31/2001
•	2079	MIDDLE FORK AMERICAN RIVER	PLACER CO WATER AGENCY	MOP	6570		CA	AMERICAN M FK	03/01/1963	02/28/2013
•	2079	MIDDLE FORK AMERICAN RIVER	PLACER CO WATER AGENCY	MOP	79200		CA	AMERICAN M FK	03/01/1963	02/28/2013
•	2079	MIDDLE FORK AMERICAN RIVER	PLACER CO WATER AGENCY	MOP	15300		CA	AMERICAN M FK	03/01/1963	02/28/2013
•	2079	MIDDLE FORK AMERICAN RIVER	PLACER CO WATER AGENCY	MOP	110525		CA	RUBICON	03/01/1963	02/28/2013
•	2082	KLAMATH	PACIFIC POWER & LIGHT CO	MON	3200		OR	LINK	01/28/1954	02/28/2006
•	2082	KLAMATH	PACIFIC POWER & LIGHT CO	MON	600		OR	LINK	01/28/1954	02/28/2006
•	2082	KLAMATH	PACIFIC POWER & LIGHT CO	MON	0		OR	KLAMATH	01/28/1954	02/28/2006
•	2082	KLAMATH	PACIFIC POWER & LIGHT CO	MON	80000		OR	KLAMATH	01/28/1954	02/28/2006
•	2082	KLAMATH	PACIFIC POWER & LIGHT	MON	20000		OR	KLAMATH	01/28/1954	02/28/2006

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* 2082	KLAMATH	PACIFIC POWER & LIGHT CO	MON	27000		OR	KLAMATH	01/28/1954	02/28/2006
* 2082	KLAMATH	PACIFIC POWER & LIGHT CO	MON	2200		OR	FALL CR	01/28/1954	02/28/2006
* 2082	KLAMATH	PACIFIC POWER & LIGHT CO	MON	18000		OR	KLAMATH	01/28/1954	02/28/2006
* 2084	RAQUETTE	NIAGARA MOHAWK POWER CO	MON	22500		NY	RAQUETTE	01/31/1952	01/31/2002
* 2084	RAQUETTE	NIAGARA MOHAWK POWER CO	MON	14400		NY	RAQUETTE	01/31/1952	01/31/2002
* 2084	RAQUETTE	NIAGARA MOHAWK POWER CO	MON	22500		NY	RAQUETTE	01/31/1952	01/31/2002
* 2084	RAQUETTE	NIAGARA MOHAWK POWER CO	MON	22500		NY	RAQUETTE	01/31/1952	01/31/2002
* 2084	RAQUETTE	NIAGARA MOHAWK POWER CO	MON	19350		NY	RAQUETTE	01/31/1952	01/31/2002
* 2085	MAMMOTH POOL	SOUTHERN CALIFORNIA EDISON CO	MON	129360		CA	SAN JOAQUIN	12/30/1957	11/30/2007
* 2085	MAMMOTH POOL	SOUTHERN CALIFORNIA EDISON CO	MON		4000	CA	SAN JOAQUIN RIVER	12/30/1957	11/30/2007
* 2086	LAKE THOMAS A EDISON	SOUTHERN CALIFORNIA EDISON CO	MON	0		CA	MONO CR	09/29/1953	08/31/2003
* 2088	SOUTH FORK	OROVILLE WYANDOTTE I D S	MOP			CA		07/17/1952	03/31/2009
* 2088	SOUTH FORK	OROVILLE WYANDOTTE I D S	MOP		13200	CA	S FK FEATHER	07/17/1952	03/31/2009
* 2088	SOUTH FORK	OROVILLE WYANDOTTE I D S	MOP	52200		CA	FEATHER S FK	07/17/1952	03/31/2009
* 2088	SOUTH FORK	OROVILLE WYANDOTTE I D S	MOP	28800		CA	FEATHER S FK	07/17/1952	03/31/2009
* 2088	SOUTH FORK	OROVILLE WYANDOTTE I D S	MOP	9900		CA	FEATHER S FK	07/17/1952	03/31/2009
* 2090	WATERBURY NO 22	GREEN MOUNTAIN POWER CORP	MON	5520		VT	WATERBURY	07/20/1954	08/31/2001
* 2100	FEATHER RIVER	CALIFORNIA DEPT OF WATER RESOURCES	MOP		3000	CA	FEATHER RIVER	02/11/1957	01/31/2007
* 2100	FEATHER RIVER	CALIFORNIA DEPT OF WATER RESOURCES	MOP	644250	500	CA	FEATHER	02/11/1957	01/31/2007
* 2100	FEATHER RIVER	CALIFORNIA DEPT OF WATER RESOURCES	MOP	115100		CA	FEATHER	02/11/1957	01/31/2007
* 2101	UPPER AMERICAN RIVER	SACRAMENTO M U D	MOP	74100		CA	GERLE CR	08/01/1957	07/31/2007
* 2101	UPPER AMERICAN RIVER	SACRAMENTO M U D	MOP	23750		CA	AMERICAN S FK	08/01/1957	07/31/2007
* 2101	UPPER AMERICAN RIVER	SACRAMENTO M U D	MOP	33250		CA	SILVER CR	08/01/1957	07/31/2007
* 2101	UPPER AMERICAN RIVER	SACRAMENTO M U D	MOP	133000		CA	SILVER CR	08/01/1957	07/31/2007
* 2101	UPPER AMERICAN RIVER	SACRAMENTO M U D	MOP	190400		CA	SILVER CREEK	08/01/1957	07/31/2007
* 2101	UPPER AMERICAN RIVER	SACRAMENTO M U D	MOP	142500		CA	SILVER CR	08/01/1957	07/31/2007
* 2101	UPPER AMERICAN RIVER	SACRAMENTO M U D	MOP		10000	CA	SOUTH FORK SILVER CREEK	08/01/1957	07/31/2007
* 2103	WANETA	COMINCO AMERICAN CO	YON	0		WA	CEDAR CREEK	08/05/1952	07/31/2002
* 2105	UPPER NO. FORK FEATHER RIVER	PACIFIC GAS AND ELEC CO	MON	117900		CA	NORTH FORK FEATHER RIVER	01/24/1955	10/31/2004
* 2105	UPPER NO. FORK FEATHER RIVER	PACIFIC GAS AND ELEC CO	MON		1300	CA	NORTH FORK FEATHER RIVER	01/24/1955	10/31/2004
* 2105	UPPER NO. FORK FEATHER RIVER	PACIFIC GAS AND ELEC CO	MON	36000		CA	BUTT CREEK	01/24/1955	10/31/2004
* 2105	UPPER NO. FORK FEATHER RIVER	PACIFIC GAS AND ELEC CO	MON	75000		CA	FEATHER N FK	01/24/1955	10/31/2004
* 2105	UPPER NO. FORK FEATHER RIVER	PACIFIC GAS AND ELEC CO	MON	109800		CA	FEATHER N FK	01/24/1955	10/31/2004

* 2106	MCCLOUD PIT	PACIFIC GAS AND ELEC CO	MON	104400	CA	PIT	08/18/1961	07/31/2011
* 2106	MCCLOUD PIT	PACIFIC GAS AND ELEC CO	MON	79200	CA	PIT	08/18/1961	07/31/2011
* 2106	MCCLOUD PIT	PACIFIC GAS AND ELEC CO	MON	154800	CA	MCCLOUD & IRON CANYON CR	08/18/1961	07/31/2011
* 2107	POE	PACIFIC GAS AND ELEC CO	MON	142830	CA	FEATHER N FK	10/26/1955	09/30/2003
* 2110	STEVENS POINT	CONSOLIDATED WATER PWR CO	MON	3840	WI	WISCONSIN	01/17/1977	06/30/2000
* 2111	SWIFT NO 1	PACIFIC POWER & LIGHT CO	MON	204000	WA	LEWIS	12/29/1956	04/30/2006
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	ST GERMAIN	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	WISCONSIN	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	NORTH PELICAN	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	PELICAN	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	TOMAHAWK	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	SQUIRREL	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	TOMAHAWK	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	SPIRIT	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	BIG EAU PLEINE R	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	TOMAHAWK	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	ST GERMAIN	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	WISCONSIN	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	TWIN	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	BUCKATAPHON CR	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	DEERSKIN	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	LITTLE DEERSKIN CR	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	LITTLE ST GERMAIN CR	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	SEVEN MILE CR	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	SUGAR CAMP CR	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	EAGLE	05/28/1959	07/31/1993
* 2113	WISCONSIN VALLEY	WIS VALLEY IMPROVEMENT CO	MON	0	WI	NINE MILE CR	05/28/1959	07/31/1993
* 2114	PRIEST RAPIDS	GRANT COUNTY PUD NO 2	MOP	788500	WA	COLUMBIA	11/04/1955	10/31/2005
* 2114	PRIEST RAPIDS	GRANT COUNTY PUD NO 2	MOP	831250	WA	COLUMBIA	11/04/1955	10/31/2005
* 2130	STANISLAUS-SPRING GAP	PACIFIC GAS AND ELEC CO	MON	81900	CA	STANISLAUS M FK	01/01/1955	12/31/2004

* 2130	STANISLAUS SPRING GAP	PACIFIC GAS AND ELEC CO	MON	6000		CA	STANISLAUS S FK	01/01/1955	12/31/2004
R 2131	KINGSFORD	WISCONSIN ELECTRIC PWR CO	MON	7200		MI	MENOMINEE	01/25/1979	06/30/2004
* 2142	INDIAN PND-HARRIS	CENTRAL MAINE POWER CO	MON	76460		ME	KENNEBEC	05/21/1952	12/31/2001
* 2144	BOUNDARY	SEATTLE DEPT OF LIGHTING	MOP	551000	392000	WA	PEND OREILLE	07/10/1961	09/30/2011
* 2145	ROCKY REACH	CHELAN COUNTY PUD NO 1	MOP	1213150		WA	COLUMBIA	07/11/1957	06/30/2006
* 2146	COOSA RIVER	ALABAMA POWER CO	MON	225000		AL	COOSA	09/04/1957	07/31/2007
* 2146	COOSA RIVER	ALABAMA POWER CO	MON	177000		AL	COOSA	09/04/1957	07/31/2007
* 2146	COOSA RIVER	ALABAMA POWER CO	MON	128250		AL	COOSA	09/04/1957	07/31/2007
* 2146	COOSA RIVER	ALABAMA POWER CO	MON	72900		AL	COOSA	09/04/1957	07/31/2007
* 2146	COOSA RIVER	ALABAMA POWER CO	MON	87750		AL	COOSA	09/04/1957	07/31/2007
* 2149	WELLS	DOUGLAS COUNTY PUD NO 1	MOP	774250		WA	COLUMBIA	07/12/1962	05/31/2012
* 2150	BAKER	PUGET SOUND POWER & LIGHT CO	MON	64000		WA	BAKER	06/04/1956	04/30/2006
* 2150	BAKER	PUGET SOUND POWER & LIGHT CO	MON	94400		WA	BAKER	06/04/1956	04/30/2006
* 2153	SANTA FELICIA RES	UNITED WTR CONSERVTN DIST	MOP	0	2055	CA	PIRU SESPE	05/01/1954	04/30/2004
* 2155	CHILI BAR	PACIFIC GAS AND ELEC CO	MON	7020		CA	AMERICAN S FK	08/28/1962	07/31/2007
* 2157	UPPER SULTAN	SNOHOMISH CNTY PUD NO 1	MOP	111800		WA	SULTAN	06/01/1961	05/31/2011
R 2161	RHINELANDER	RHINELANDER PAPER CO	MON	2000		WI	WISCONSIN	01/23/1981	06/30/2000
* 2165	BANKHEAD, JOHN H.	ALABAMA POWER CO	MON	45125		AL	BLACK WARRIOR	09/12/1957	08/31/2007
* 2165	BANKHEAD, JOHN H	ALABAMA POWER CO	MON	157500		AL	SIPSEY FK	09/12/1957	08/31/2007
* 2169	CHILHOWEE LAKE	TAPOCO INC	MON	110000		TN	LITTLE TENNESSEE	03/17/1955	02/28/2005
* 2169	CHILHOWEE LAKE	TAPOCO INC	MON	45000		TN	CHEOAH	03/17/1955	02/28/2005
* 2169	CHILHOWEE LAKE	TAPOCO INC	MON	121500		TN	LITTLE TENNESSEE	03/17/1955	02/28/2005
* 2169	CHILHOWEE LAKE	TAPOCO INC	MON	50000		TN	LITTLE TENNESSEE	03/17/1955	02/28/2005
* 2170	COOPER LAKE	CHUGACH ELEC ASSN INC	MON	15000		AK	COOPER CR	05/01/1957	04/30/2007
* 2174	PORTAL	SOUTHERN CALIFORNIA EDISON CO	MON	10000		CA	BIG CREEK	04/19/1955	03/31/2005
* 2175	BIG CREEK NO 1 & 2	SOUTHERN CALIFORNIA EDISON CO	MON	57750		CA	BIG CREEK	03/29/1959	02/28/2009
* 2175	BIG CREEK NO 1 & 2	SOUTHERN CALIFORNIA EDISON CO	MON	66900		CA	BIG CREEK	03/29/1959	02/28/2009
* 2177	CHATTAHOOCHEE	GEORGIA POWER CO	MON	29600		GA	CHATTAHOOCHEE	03/05/1959	12/31/2004
* 2177	CHATTAHOOCHEE	GEORGIA POWER CO	MON	60000		GA	CHATTAHOOCHEE	03/05/1959	12/31/2004
* 2177	CHATTAHOOCHEE	GEORGIA POWER CO	MON	26000		GA	CHATTAHOOCHEE	03/05/1959	12/31/2004
* 2179	MCSWAIN & NEW EXCHEQUER	MERCED IRRIG DIST	MOP	80000		CA	MERCED	04/18/1964	02/28/2014
* 2179	MCSWAIN & NEW EXCHEQUER	MERCED IRRIG DIST	MOP	0		CA	MERCED	04/18/1964	02/28/2014
R 2180	GRANDMOTHER	OWENS-ILLINOIS INC	MON	3000		WI	WISCONSIN	09/16/1977	06/30/2003
* 2181	MENOMONIE	NORTHERN STATES POWER CO	MON	5400		WI	RED CEDAR	04/17/1956	03/31/2005
* 2183	MARKHAM FERRY	GRAND RIVER DAM AUTHORITY	MOP	100000		OK	GRAND	06/01/1955	05/31/2005
* 2187	GEORGETOWN	PUBLIC SERVICE CO OF COLO	MON	1440		CO	CLEAR CREEK S FK	08/27/1964	12/31/1993
* 2188	MISSOURI-MADISON	MONTANA POWER CO THE	MON	0		MT	MADISON	04/23/1956	11/30/1998
* 2188	MISSOURI-MADISON	MONTANA POWER CO THE	MON	9000		MT	MADISON	04/23/1956	11/30/1998
* 2188	MISSOURI-MADISON	MONTANA POWER CO THE	MON	17000		MT	MISSOURI	04/23/1956	11/30/1998
* 2188	MISSOURI-MADISON	MONTANA POWER CO THE	MON	38400		MT	MISSOURI	04/23/1956	11/30/1998

*	2188	MISSOURI MADISON	MONTANA POWER CO THE	MON	35600	MT	MISSOURI	04/23/1956	11/30/1998
*	2188	MISSOURI MADISON	MONTANA POWER CO THE	MON	16800	MT	MISSOURI	04/23/1956	11/30/1998
*	2188	MISSOURI-MADISON	MONTANA POWER CO THE	MON	45000	MT	MISSOURI	04/23/1956	11/30/1998
*	2188	MISSOURI-MADISON	MONTANA POWER CO THE	MON	48000	MT	MISSOURI	04/23/1956	11/30/1998
*	2188	MISSOURI MADISON	MONTANA POWER CO THE	MON	48000	MT	MISSOURI	04/23/1956	11/30/1998
*R	2192	BIRON NO 2	CONSOLIDATED WATER PWR CO	MON	3300	WI	WISCONSIN	08/14/1980	06/30/2000
*	2194	BAR MILLS	CENTRAL MAINE POWER CO	MON	4000	ME	SACO	05/11/1956	06/30/2005
*	2195	NORTH FORK	PORTLAND GENERAL ELEC CO	MON	19050	OR	CLACKAMAS	01/18/1957	08/31/2006
*	2195	NORTH FORK	PORTLAND GENERAL ELEC CO	MON	34450	OR	CLACKAMAS	01/18/1957	08/31/2006
*	2195	NORTH FORK	PORTLAND GENERAL ELEC CO	MON	38400	OR	CLACKAMAS	01/18/1957	08/31/2006
*	2197	YADKIN FALLS	YADKIN INC	MON	42000	NC	YADKIN	05/01/1958	04/30/2008
*	2197	YADKIN FALLS	YADKIN INC	MON	96500	NC	YADKIN	05/01/1958	04/30/2008
*	2197	YADKIN FALLS	YADKIN INC	MON	29500	NC	YADKIN	05/01/1958	04/30/2008
*	2197	YADKIN FALLS	YADKIN INC	MON	33000	NC	YADKIN	05/01/1958	04/30/2008
*	2198	SANTA ANA NO 3	SOUTHERN CALIFORNIA EDISON CO	MON	1500	CA	SANTA ANA	05/01/1959	04/30/2009
*	2203	HOLT LOCK AND DAM	ALABAMA POWER CO	MON	40000	AL	BLACK WARRIOR	10/07/1965	08/31/2015
*	2204	WILLIAMS FORK	DENVER CITY & COUNTY OF	MOP	3600	CO	WILLIAMS FORK	01/31/1963	12/31/2007
*	2205	LAMOILLE RIVER	CENTRAL VERMONT PUBLIC SERVICE CORP	MON	5000	VT	LAMOILLE	05/07/1968	12/31/1987
*	2205	LAMOILLE RIVER	CENTRAL VERMONT PUBLIC SERVICE CORP	MON	6300	VT	LAMOILLE	05/07/1968	12/31/1987
*	2205	LAMOILLE RIVER	CENTRAL VERMONT PUBLIC SERVICE CORP	MON	3000	VT	LAMOILLE	05/07/1968	12/31/1987
*	2205	LAMOILLE RIVER	CENTRAL VERMONT PUBLIC SERVICE CORP	MON	2880	VT	LAMOILLE	05/07/1968	12/31/1987
*	2206	BLEWETT FALLS LAKE & TILLERY	CAROLINA POWER AND LT CO	MON	84000	NC	YADKIN	05/19/1958	04/30/2008
*	2206	BLEWETT FALLS LAKE & TILLERY	CAROLINA POWER AND LT CO	MON	24600	NC	YADKIN	05/19/1958	04/30/2008
*R	2207	MOSINEE	MOSINEE PAPER MILLS CO	MON	3050	WI	WISCONSIN	01/05/1982	12/31/2004
*	2210	LEESVILLE & SMITH MT LAKES	APPALACHIAN POWER CO	MON	47500	VA	ROANOKE	04/25/1960	03/31/2010
*	2210	LEESVILLE & SMITH MT LAKES	APPALACHIAN POWER CO	MON	640000	VA	ROANOKE	04/25/1960	03/31/2010
*	2211	MARKLAND	PUBLIC SERVICE CO OF IND	MON	81000	IN	OHIO	05/31/1961	04/30/2011
*	2212	ROTHSCHILD	WEYERHAEUSER CO	MON	3640	WI	WISCONSIN	04/28/1959	07/31/1993
*	2213	SWIFT NO 2	COWLITZ COUNTY PUD NO 1	MOP	70000	WA	LEWIS	11/29/1956	04/30/2006
*	2216	NIAGARA-LEWISTON	POWER AUTHORITY OF THE STATE OF NY	MOP	1950000	NY	NIAGARA	01/30/1958	08/31/2007
*	2216	NIAGARA-LEWISTON	POWER AUTHORITY OF THE STATE OF NY	MOP	240000	NY	NIAGARA	01/30/1958	08/31/2007
*	2219	BOULDER CREEK	GARKANE POWER ASSN INC	MON	4200	UT	BOULDER CR	05/27/1957	04/30/2007
*R	2221	OZARK BEACH	EMPIRE DISTRICT ELEC CO	MON	16000	MO	WHITE	08/24/1970	08/31/1993
*	2225	SULLIVAN LAKE	PEND OREILLE PUD NO 1	MOP	0	WA	SULLIVAN CREEK	11/25/1958	09/30/2008
*	2230	BLUE LAKE	SITKA CITY & BOROUGH OF	MOP	6000	AK	MEDVETCHA	04/24/1958	03/31/2008
*	2232	WYLIE	DUKE POWER CO	MON	20000	SC	CATAWBA	09/17/1958	08/31/2008

*	2232	WYLIE	DUKE POWER CO	MON	25500		SC	CATAWBA	09/17/1958	08/31/2008
*	2232	WYLIE	DUKE POWER CO	MON	36000		SC	CATAWBA	09/17/1958	08/31/2008
*	2232	WYLIE	DUKE POWER CO	MON	18720		SC		09/17/1958	08/31/2008
*	2232	WYLIE	DUKE POWER CO	MON	350000		SC	CATAWBA	09/17/1958	08/31/2008
*	2232	WYLIE	DUKE POWER CO	MON	73000		SC	CATAWBA	09/17/1958	08/31/2008
*	2232	WYLIE	DUKE POWER CO	MON	60000		SC	CATAWBA	09/17/1958	08/31/2008
*	2232	WYLIE	DUKE POWER CO	MON	56000		SC	CATAWBA RIVER	09/17/1958	08/31/2008
*	2232	WYLIE	DUKE POWER CO	MON	69000		SC	CATAWBA	09/17/1958	08/31/2008
*	2232	WYLIE	DUKE POWER CO	MON	36720		SC	CATAWBA	09/17/1958	08/31/2008
*	2232	WYLIE	DUKE POWER CO	MON	60000		SC	CATAWBA	09/17/1958	08/31/2008
*	2233	WILLAMETTE	CROWN ZELLERBACH CORP	MON	15660		OR	WILLAMETTE	06/21/1960	12/31/2004
*	2233	WILLAMETTE	CROWN ZELLERBACH CORP	MON	15400		OR	WILLAMETTE	06/21/1960	12/31/2004
*	2233	WILLAMETTE	CROWN ZELLERBACH CORP	MON	10300		OR	WILLAMETTE	06/21/1960	12/31/2004
*	2237	MORGAN FALLS	GEORGIA POWER CO	MON	16800		GA	CHATTAHOOCHEE	03/27/1959	02/28/2009
*	2239	KINGS DAM	TOMAHAWK POWER & PULP CO	MON	2770		WI	WISCONSIN	07/01/1959	07/31/1993
*	2242	TRAIL BRIDGE & CARMEN	EUGENE CITY OF	MOP	10000		OR	MCKENZIE SMITH	01/08/1959	11/30/2008
*	2242	TRAIL BRIDGE & CARMEN	EUGENE CITY OF	MOP	80000		OR	MCKENZIE	01/08/1959	11/30/2008
*	2244	PACKWOOD LAKE	WASHINGTON PUB PWR SU SYS	MOP	26125		WA	LAKE CR	07/07/1960	02/28/2010
*	2245	CANNELTON	VANCEBURG CITY OF	MOP		70560	KY	OHIO	03/29/1976	02/28/2026
*	2246	YUBA RIVER	YUBA COUNTY WATER AGENCY	MOP	46700		CA	YUBA	05/16/1963	04/30/2013
*	2246	YUBA RIVER	YUBA COUNTY WATER AGENCY	MOP	284400		CA	YUBA N FORK	05/16/1963	04/30/2013
*	2251	SAN JUAN	NEW ENGLAND FISH CO	MON	100		AK	SAN JUAN LAKE	10/08/1957	10/07/1977
*	2255	CENTRALIA	NEKOOSA PAPERS INC	MON	3200		WI	WISCONSIN	09/01/1959	07/31/1993
*	2256	WISCONSIN RAPIDS	CONSOLIDATED WATER PWR CO	MON	4680		WI	WISCONSIN	10/05/1959	07/31/1993
*	2266	YUBA BEAR	NEVADA IRRIGATION DISTRICT	MOP		3500	CA	MIDDLE YUBA	06/24/1963	04/30/2013
*	2266	YUBA-BEAR	NEVADA IRRIGATION DISTRICT	MOP	11000		CA	BEAR R	06/24/1963	04/30/2013
*	2266	YUBA-BEAR	NEVADA IRRIGATION DISTRICT	MOP		3000	CA	CANYON CREEK	06/24/1963	04/30/2013
*	2266	YUBA-BEAR	NEVADA IRRIGATION DISTRICT	MOP	37350		CA	BEAR R	06/24/1963	04/30/2013
*	2266	YUBA-BEAR	NEVADA IRRIGATION DISTRICT	MOP	22800		CA	BEAR R	06/24/1963	04/30/2013
*	2267	PULP MILL	ALASKA LUMBER PULP CO INC	MON	0	900	AK	MEDVETCHA	06/21/1960	03/31/2010
*	2275	SALIDA HYDRO NO 1 & NO 2	PUBLIC SERVICE CO OF COLO	MON	560		CO	ARKANSAS, S. FORK	03/05/1965	12/31/1993
*	2275	SALIDA HYDRO NO 1 & NO 2	PUBLIC SERVICE CO OF COLO	MON	750		CO	ARKANSAS, S. FORK	03/05/1965	12/31/1993
*	2277	TAUM SAUK	UNION ELECTRIC CO	MON	350000		MO	BLACK E FK	08/26/1965	06/30/2010
*	2280	KINZUA P S	PENN ELEC CO-CLEV EL ILLM	MON	355000		PA	ALLEGHENY	12/28/1965	11/30/2015
*	2283	DEER RIPS-ANDROSCOGGIN-GULF ISLAND	CENTRAL MAINE POWER CO	MON	6540		ME	ANDROSCOGGIN	07/05/1962	12/31/1993
*	2283	DEER RIPS-ANDROSCOGGIN-GULF ISLAND	CENTRAL MAINE POWER CO	MON	3600		ME	ANDROSCOGGIN	07/05/1962	12/31/1993
*	2283	DEER RIPS-ANDROSCOGGIN-GULF ISLAND	CENTRAL MAINE POWER CO	MON	19200		ME	ANDROSCOGGIN	07/05/1962	12/31/1993
*	2284	TOPSHAM BRUNSWICK	CENTRAL MAINE POWER	MON	19000		ME	ANDROSCOGGIN	02/09/1979	01/31/2029

		CO							
* 2287	J BRODIE SMITH	PUBLIC SERVICE CO OF N H	MON	15000		NH	ANDROSCOGGIN	04/25/1962	12/31/1993
* 2288	GORHAM	PUBLIC SERVICE CO OF N H	MON	2150		NH	ANDROSCOGGIN	04/25/1962	12/31/1993
* 2290	KERN RIVER NO 3	SOUTHERN CALIFORNIA EDISON CO	MON	32000		CA	KERN	08/07/1954	12/31/1993
* 2291	PORT EDWARDS	NEKOOSA PAPERS INC	MON	3593		WI	WISCONSIN	07/19/1962	07/31/1993
* 2292	NEKOOSA	NEKOOSA PAPERS INC	MON	3800		WI	WISCONSIN	07/30/1962	07/31/1993
* 2299	NEW DON PEDRO	TURLOCK MODESTO IRRIG DIS	MOP	130400		CA	TUOLUMNE	03/10/1964	04/30/2016
* 2300	SHELBURNE	JAMES RIVER-N H ELEC INC	MON	3720		NH	ANDROSCOGGIN	07/19/1962	12/31/1993
* 2301	MYSTIC LAKE	MONTANA POWER CO THE	MON	10000		MT	WEST ROSEBUD CR	10/05/1976	12/31/2009
* 2302	LEWISTON FALLS	UNION WATER POWER CO	MON	700	25000	ME	ANDROSCOGGIN	12/02/1963	12/31/1993
* 2304	BLUE RIDGE	PHELPS DODGE CORP	MON	2800		AZ	EAST CLEAR CR	03/20/1963	12/31/2012
* 2305	TOLEDO BEND	SABINE RIVER AUTH LA & TEX	MOP	85000		TX	SABINE	10/14/1963	09/30/2013
* 2306	CLYDE	CITIZENS UTILITIES CO	MON	3600		VT	CLYDE	11/30/1962	12/31/1993
* 2306	CLYDE	CITIZENS UTILITIES CO	MON	0		VT	CLYDE	11/30/1962	12/31/1993
* 2306	CLYDE	CITIZENS UTILITIES CO	MON	0		VT	CLYDE	11/30/1962	12/31/1993
* 2306	CLYDE	CITIZENS UTILITIES CO	MON	0		VT	CLYDE	11/30/1962	12/31/1993
* 2306	CLYDE	CITIZENS UTILITIES CO	MON	1600		VT	CLYDE	11/30/1962	12/31/1993
* 2307	SALMON CREEK & ANNEX CREEK	ALASKA ELEC LIGHT&POW CO	MON	3500		AK	ANNEX CR	10/24/1963	08/31/1988
* 2307	SALMON CREEK & ANNEX CREEK	ALASKA ELEC LIGHT&POW CO	MON	9500	2800	AK	SALMON CR UPPER	10/24/1963	08/31/1988
* 2309	YARDS CREEK	JERSEY CENTRAL PWR AND LT	MON	338625		NJ	DELAWARE	03/14/1963	02/28/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON	2000		CA	LITTLE BEAR	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON			CA	WISE CANAL	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON			CA	BEAR RIVER CANAL	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON			CA	LAKE VALLEY CANAL	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON		10800	CA	SOUTH CANAL	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON	6300	2700	CA	YUBA S	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON	5500		CA	YUBA S & DEER CR	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON	12000		CA	AMERICAN N F	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON	12000		CA	AMERICAN N F	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON	22000		CA	BEAR	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON	93300		CA	YUBA S,BEAR,AMERICAN N F	06/24/1963	04/30/2013
* 2310	DRUM-SPAULDING	PACIFIC GAS AND ELEC CO	MON	10750		CA	YUBA S	06/24/1963	04/30/2013
* 2311	GORHAM	JAMES RIVER-N H ELEC INC	MON	4800		NH	ANDROSCOGGIN	12/04/1963	12/31/1993

*	2312	GREAT WORKS	DIAMOND INTER CORP	MON	4580	3150	ME	PENOBSCOT	12/09/1963	03/31/2002
*	2315	NEAL SHOALS	SOUTH CAROLINA ELEC & GAS CO	MON	5200		SC	BROAD	11/21/1963	12/31/1993
*	2318	E J WEST	NIAGARA MOHAWK POWER CORP	MON	20000		NY	SACANDAGA	06/25/1963	12/31/1993
*	2320	RAQUETTE	NIAGARA MOHAWK POWER CORP	MON	4800		NY	RAQUETTE	06/12/1964	12/31/1993
*	2320	RAQUETTE	NIAGARA MOHAWK POWER CORP	MON	7200		NY	RAQUETTE	06/12/1964	12/31/1993
*	2320	RAQUETTE	NIAGARA MOHAWK POWER CORP	MON	4480		NY	RAQUETTE	06/12/1964	12/31/1993
*	2320	RAQUETTE	NIAGARA MOHAWK POWER CORP	MON	29520		NY	RAQUETTE	06/12/1964	12/31/1993
*	2322	SHAWMUT	CENTRAL MAINE POWER CO	MON	4650	4090	ME	KENNEBEC	01/05/1981	01/31/2021
*	2323	DEERFIELD RIVER	NEW ENGLAND POWER CO	MON	0		MA	DEERFIELD E BR	10/29/1963	12/31/1993
*	2323	DEERFIELD RIVER	NEW ENGLAND POWER CO	MON	4000		MA	DEERFIELD	10/29/1963	12/31/1993
*	2323	DEERFIELD RIVER	NEW ENGLAND POWER CO	MON	33600		MA	DEERFIELD	10/29/1963	12/31/1993
*	2323	DEERFIELD RIVER	NEW ENGLAND POWER CO	MON	7200		MA	DEERFIELD	10/29/1963	12/31/1993
*	2323	DEERFIELD RIVER	NEW ENGLAND POWER CO	MON	4800		MA	DEERFIELD	10/29/1963	12/31/1993
*	2323	DEERFIELD RIVER	NEW ENGLAND POWER CO	MON	4800		MA	DEERFIELD	10/29/1963	12/31/1993
*	2323	DEERFIELD RIVER	NEW ENGLAND POWER CO	MON	4800		MA	DEERFIELD	10/29/1963	12/31/1993
*	2323	DEERFIELD RIVER	NEW ENGLAND POWER CO	MON	15000		MA	DEERFIELD	10/29/1963	12/31/1993
*	2325	WESTON	CENTRAL MAINE POWER CO	MON	12000		ME	KENNEBEC	10/15/1964	12/31/1993
*	2326	CROSS	JAMES RIVER-N H ELEC INC	MON	3220		NH	ANDROSCOGGIN	07/06/1964	12/31/1993
*	2327	CASCADE	JAMES RIVER-N H ELEC INC	MON	7200		NH	ANDROSCOGGIN	07/07/1964	12/31/1993
*	2329	WYMAN	CENTRAL MAINE POWER CO	MON	72000		ME	KENNEBEC	10/15/1964	12/31/1993
*	2330	RAQUETTE	NIAGARA MOHAWK POWER CORP	MON	2000		NY	RAQUETTE	07/16/1964	12/31/1993
*	2330	RAQUETTE	NIAGARA MOHAWK POWER CORP	MON	2000		NY	RAQUETTE	07/16/1964	12/31/1993
*	2330	RAQUETTE	NIAGARA MOHAWK POWER CORP	MON	3000		NY	RAQUETTE	07/16/1964	12/31/1993
*	2330	RAQUETTE	NIAGARA MOHAWK POWER CORP	MON	4500		NY	RAQUETTE	07/16/1964	12/31/1993
*	2331	NINETY NINE ISLANDS	DUKE POWER CO	MON	18000		SC	BROAD	07/15/1964	12/31/1993
*	2332	GASTON SHOALS	DUKE POWER CO	MON	9140		SC	BROAD	07/24/1964	12/31/1993
*	2333	RUMFORD FALLS	RUMFORD FALLS POWER CO	MON	12800		ME	ANDROSCOGGIN	05/14/1965	12/31/1993
*	2333	RUMFORD FALLS	RUMFORD FALLS POWER CO	MON	21970		ME	ANDROSCOGGIN	05/14/1965	12/31/1993
*	2334	GARDNER FALLS	WESTERN MASS ELECTRIC CO	MON	3580		MA	DEERFIELD	07/15/1964	12/31/1993
*	2335	WILLIAMS	CENTRAL MAINE POWER CO	MON	13000		ME	KENNEBEC	07/24/1964	12/31/1987
*	2336	LLOYD SHOALS	GEORGIA POWER CO	MON	14400		GA	OCMULGEE	01/05/1968	12/31/1993
*	2337	PROSPECT NO 3	PACIFIC POWER & LIGHT CO	MON	7200		OR	ROGUE S FK	07/08/1964	12/31/1988
*	2341	LANGDALE	GEORGIA POWER CO	MON	1040		GA	CHATTAHOOCHEE	10/15/1964	12/31/1993
*	2342	CONDIT	PACIFIC POWER & LIGHT CO	MON	9600		WA	WHITE SALMON	12/20/1968	12/31/1993
*	2343	MILLVILLE	POTOMAC EDISON CO	MON	2840		WV	SHENANDOAH	08/11/1964	12/31/1987
*	2347	JANESVILLE	WISCONSIN POWER AND LT CO	MON	500		WI	ROCK	10/07/1964	12/31/1993
*	2348	BELOIT	WISCONSIN POWER AND LT CO	MON	380		WI	ROCK	10/07/1964	12/31/1993

50	RIVERVIEW	GEORGIA POWER CO	NON	480		GA	CHATTAHOOCHEE	03/02/1965	12/31/1993
51	CABIN CREEK	PUBLIC SERVICE CO OF COLO	MON	300000		CO	CLEAR CREEK SO	03/23/1964	02/28/2014
52	MENASHA	GEORGE A WHITING PAPER CO	NON	250		WI	FOX RIVER	03/02/1965	10/31/1988
54	TUGALO & TALLULAH	GEORGIA POWER CO	MON	22500		GA	TUGALO	05/07/1964	12/31/1993
54	TUGALO & TALLULAH	GEORGIA POWER CO	MON	45000		GA	TUGALO	05/07/1964	12/31/1993
54	TUGALO & TALLULAH	GEORGIA POWER CO	MON	6120		GA	TALLULAH	05/07/1964	12/31/1993
54	TUGALO & TALLULAH	GEORGIA POWER CO	MON	4800		GA	TALLULAH	05/07/1964	12/31/1993
54	TUGALO & TALLULAH	GEORGIA POWER CO	MON	16000		GA	TALLULAH	05/07/1964	12/31/1993
54	TUGALO & TALLULAH	GEORGIA POWER CO	MON	72000		GA	TALLULAH	05/07/1964	12/31/1993
55	MUDDY RUN P S	PHILA ELECT PWR CO ETAL	MON	800000		PA	SUSQUEHANNA	09/21/1964	09/01/2004
57	WHITE RAPIDS	WISCONSIN ELECTRIC PWR CO	MON	8000		MI	MENOMINEE	03/10/1965	12/31/1993
60	ST LOUIS	MINNESOTA POWER & LIGHT CO	MON	0		MN	SKUNK & WHITEFACE	12/11/1964	12/31/1993
60	ST LOUIS	MINNESOTA POWER & LIGHT CO	MON	0		MN	OTTER	12/11/1964	12/31/1993
60	ST LOUIS	MINNESOTA POWER & LIGHT CO	MON	0		MN	CLOQUET	12/11/1964	12/31/1993
60	ST LOUIS	MINNESOTA POWER & LIGHT CO	MON	0		MN	BEAVER	12/11/1964	12/31/1993
60	ST LOUIS	MINNESOTA POWER & LIGHT CO	MON	0		MN	BEAVER	12/11/1964	12/31/1993
60	ST LOUIS	MINNESOTA POWER & LIGHT CO	MON	0		MN	ST LOUIS	12/11/1964	12/31/1993
60	ST LOUIS	MINNESOTA POWER & LIGHT CO	MON	0		MN	ST LOUIS	12/11/1964	12/31/1993
60	ST LOUIS	MINNESOTA POWER & LIGHT CO	MON	0		MN	ST LOUIS	12/11/1964	12/31/1993
60	ST LOUIS	MINNESOTA POWER & LIGHT CO	MON	83350		MN	ST LOUIS	12/11/1964	12/31/1993
61	PRAIRE RIVER	MINNESOTA POWER & LIGHT CO	NON	1084		MN	PRAIRIE	03/02/1965	12/31/1993
62	GRAND RAPIDS	BLANDIN PAPER COMPANY	MON	2100		MN	MISSISSIPPI	11/12/1965	12/31/1993
363	CLOQUET	POTLATCH CORPORATION	MON	6514		MN	ST LOUIS	12/11/1964	12/31/1993
364	ABENAKI	MADISON PAPER INDUSTRIES	MON	3650		ME	KENNEBEC	08/03/1964	04/30/2004
365	ANSON	MADISON PAPER INDUSTRIES	MON	6000		ME	KENNEBEC	08/11/1964	12/31/1993
366	MILLINOCKET LAKE	MAINE PUBLIC SERVICE CO	NON	0		ME	MILLINOCKET	01/04/1965	06/30/1992
367	CARIBOU	MAINE PUBLIC SERVICE CO	NON	800		ME	AROOSTOOK	01/04/1965	12/31/1993
368	SQUA PAN	MAINE PUBLIC SERVICE CO	NON	1500		ME	SQUA PAN STREAM	01/04/1965	12/31/1990
370	DEEP CREEK	PENN ELEC CO	MON	19200		MD	DEEP CREEK	07/23/1968	12/31/1993
372	WARRIOR RIDGE	PENN ELEC CO	MON			PA	JUNIATA	06/03/1968	12/31/1993
373	ROCKTON	SOUTH BELIOT W G & E CO	NON	1200		IL	ROCK	10/07/1964	12/31/1993
374	WATERVLIET	WATERVLIET PAPER CO	NON	300		MI	PAW PAW	03/03/1965	12/31/1990
375	RILEY-JAY-LIVERMORE	INTERNATIONAL PAPER CO	MON	7615	1000	ME	ANDROSCOGGIN	02/18/1965	09/30/1999
375	RILEY-JAY-LIVERMORE	INTERNATIONAL PAPER CO	MON	2500	625	ME	ANDROSCOGGIN	02/18/1965	09/30/1999
375	RILEY-JAY-LIVERMORE	INTERNATIONAL PAPER CO	MON	7800		ME	ANDROSCOGGIN	02/18/1965	09/30/1999
376	REUSENS	APPALACHIAN POWER CO	MON	12500		VA	JAMES	08/12/1964	12/31/1993

2381	ASHTON & ST ANTHONY	UTAH POWER & LIGHT CO	MON	500		ID	HENRYS FORK OF SNAKE RI	12/19/1977	12/31/1987
2381	ASHTON & ST ANTHONY	UTAH POWER & LIGHT CO	MON	5800		ID	HENRYS FORK OF SNAKE RI	12/19/1977	12/31/1987
2385	GLEN FALLS	FINCH PRUYN AND CO	MON	5840		NY	HUDSON	02/25/1965	12/31/1993
2386	HOLYOKE NO 1	HOLYOKE GAS AND EL DEPT	NON	1056		MA	CONNECTICUT CANAL	03/23/1965	02/28/1991
2387	HOLYOKE NO 2	HOLYOKE GAS AND EL DEPT	NON	800		MA	CONNECTICUT CANAL	03/23/1965	03/31/1988
2388	HOLYOKE NO 3	HOLYOKE GAS AND EL DEPT	NON	450		MA	CONNECTICUT CANAL	03/23/1965	05/31/1990
2389	EDWARDS	AUGUSTA DEV CORP	MON	3500		ME	KENNEBEC	08/12/1964	12/31/1993
2390	BIG FALLS	LAKE SUPERIOR DIST PWR CO	MON	7780		WI	FLAMBEAU RIVER	05/25/1965	12/31/1993
2391	WARREN	POTOMAC EDISON CO	NON	750		VA	SHENANDOAH	03/02/1965	12/31/1993
2392	GILMAN	GEORGIA PACIFIC CORP	MON	3390		VT	CONNECTICUT	05/17/1965	12/31/1990
2394	CHALK HILL	WISCONSIN ELECTRIC PWR CO	MON	7800		MI	MENOMINEE	11/15/1965	06/30/1993
2395	PIXLEY	FLAMBEAU PAPER CORP	NON	960		WI	N FK FLAMBEAU	11/18/1969	12/31/1993
2396	PIERCE MILLS	CENTRAL VERMONT P S CORP	NON	250		VT	PASSUMPSIC	06/11/1969	12/31/1993
2397	GAGE	CENTRAL VERMONT P S CORP	NON	700		VT	PASSUMPSIC	06/11/1969	12/31/1993
2399	ARNOLD FALLS	CENTRAL VERMONT P S CORP	NON	350		VT	PASSUMPSIC	06/11/1969	12/31/1993
2400	PASSUMPSIC	CENTRAL VERMONT P S CORP	NON	700		VT	PASSUMPSIC	02/11/1970	12/31/1993
2401	GRACE & COVE	UTAH POWER & LIGHT CO	MON	33000		ID	BEAR	10/06/1976	10/01/2001
2401	GRACE & COVE	UTAH POWER & LIGHT CO	MON	7500		ID	BEAR	10/06/1976	10/01/2001
2402	PRICKETT	UPPER PENINSULA POWER CO	MON	1760		MI	STURGEON	01/25/1968	12/31/1993
2403	VEAZIE	BANGOR HYDRO ELECTRIC CO	MON	8400		ME	PENOBSCOT	02/18/1965	12/31/1987
2404	THUNDER BAY RIVER	ALPENA POWER CO	MON	1070		MI	THUNDER BAY	02/13/1968	12/31/1993
2404	THUNDER BAY RIVER	ALPENA POWER CO	MON	1800		MI	THUNDER BAY	02/13/1968	12/31/1993
2404	THUNDER BAY RIVER	ALPENA POWER CO	MON	0		MI	UPPER THUNDER BAY R	02/13/1968	12/31/1993
2404	THUNDER BAY RIVER	ALPENA POWER CO	MON	0		MI	THUNDER BAY LOWER SO BR	02/13/1968	12/31/1993
2404	THUNDER BAY RIVER	ALPENA POWER CO	MON	4000		MI	THUNDER BAY	02/13/1968	12/31/1993
2406	SALUDA	DUKE POWER CO	MON	2400		SC	SALUDA	09/13/1968	12/31/1993
2407	YATES	ALABAMA POWER CO	MON	32000		AL	TALLAPOOSA	01/14/1965	12/31/1993
2408	THURLOW DAM	ALABAMA POWER CO ET AL	MON	58000		AL	TALLAPOOSA	04/05/1965	12/31/1993
2409	NORTH FORK STANISLAUS	CALAVERAS COUNTY WTR DIST	MOP		200000	CA	NORTH FORK STANISLAUS RIVER	02/08/1982	01/31/2032
2409	NORTH FORK STANISLAUS	CALAVERAS COUNTY WTR DIST	MOP		5200	CA		02/08/1982	01/31/2032
2411	SCHOOLFIELD	DAN RIVER INC	MON	4558		VA	DAN	11/16/1976	12/31/1993
2413	WALLACE	GEORGIA POWER CO	MON	324000		GA	OCONEE	06/01/1970	05/31/2020
2416	WARE SHOALS	RIEGEL TEXTILE CORP	MON	5100	1100	SC	SALUDA	10/06/1976	09/30/2001
2417	HAYWARD	LAKE SUPERIOR DIST PWR CO	NON	168		WI	NAMEKAGON	08/17/1967	12/31/1993
2419	MILLMAN	ALPENA POWER CO	NON	250		MI	THUNDER BAY	03/04/1965	12/31/1993
2420	CUTLER	UTAH POWER & LIGHT CO	MON	30000		UT	BEAR	12/23/1968	12/31/1993
2421	LOWER HYDRO ELECT	FLAMBEAU PAPER CORP	NON	1200		WI	FLAMBEAU N FK	04/19/1966	12/31/1993
2422	SAWMILL	JAMES RIVER-N H ELEC	MON	3174		NH	ANDROSCOGGIN	07/30/1965	12/31/1993

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* 2423	RIVERSIDE	JAMES RIVER N H ELEC INC	MON	7600		NH	ANDROSCOGGIN	08/20/1965	12/31/1993
* 2424	HYDRAULIC RACE	NIAGARA MOHAWK POWER CORP	MON	4687		NY	BARGE CANAL	12/09/1964	06/30/1991
* 2425	LURAY & NEWPORT	POTOMAC EDISON CO	MON	1400		VA	SHENANDOAH S FK	07/21/1965	12/31/1993
* 2425	LURAY & NEWPORT	POTOMAC EDISON CO	MON	1600		VA	SHENANDOAH S FK	07/21/1965	12/31/1993
* 2426	CALIFORNIA AQUEDUCT	CALIFORNIA DEPT OF WATER RESOURCES	MOP		7200	CA	MOJAVE SIPHON	03/22/1978	01/31/2022
* 2426	CALIFORNIA AQUEDUCT	CALIFORNIA DEPT OF WATER RESOURCES	MOP	75000		CA	CALIFORNIA AQUEDUCT	03/22/1978	01/31/2022
* 2426	CALIFORNIA AQUEDUCT	CALIFORNIA DEPT OF WATER RESOURCES	MOP	0	15000	CA	CALIFORNIA AQUEDUCT	03/22/1978	01/31/2022
* 2426	CALIFORNIA AQUEDUCT	CALIFORNIA DEPT OF WATER RESOURCES	MOP	0	5900	CA	CALIFORNIA AQUEDUCT	03/22/1978	01/31/2022
* 2426	CALIFORNIA AQUEDUCT	CALIFORNIA DEPT OF WATER RESOURCES	MOP	119700		CA	CALIFORNIA AQUEDUCT	03/22/1978	01/31/2022
* 2426	CALIFORNIA AQUEDUCT	CALIFORNIA DEPT OF WATER RESOURCES	MOP	1250000		CA	CALIFORNIA AQUEDUCT	03/22/1978	01/31/2022
* 2428	PIEDMONT	AQUENERGY SYSTEMS INC	NON	1000		SC	SALUDA	09/23/1970	12/31/1987
* 2431	BRULE	WISCONSIN ELECTRIC PWR CO	MON	5335		MI	BRULE	07/26/1967	12/31/1993
* 2433	GRAND RAPIDS	WISCONSIN PUB SERV CORP	MON	7020		MI	MENOMINEE	08/20/1965	12/31/1993
* 2436	FOOTE	CONSUMERS POWER CO	MON	9000		MI	AU SABLE	01/04/1966	12/31/1993
* 2438	WATERLOO & SENECA FALLS	NEW YORK ST EL AND G CORP	MON	2000		NY	SENECA	03/05/1965	12/31/1993
* 2438	WATERLOO & SENECA FALLS	NEW YORK ST EL AND G CORP	MON	1920		NY	SENECA CANAL	03/05/1965	12/31/1993
* 2440	CHIPPEWA FALLS	NORTHERN STATES POWER CO	MON	21600		WI	CHIPPEWA	04/07/1965	12/31/1993
* 2441	GREENVILLE	NORWICH CITY OF	NOP	800		CT	SHETUCKET	04/15/1965	12/31/1993
* 2442	WATERTOWN	WATERTOWN MUN ELEC DEPT	MOP	5400		NY	BLACK	09/20/1967	12/31/1993
* 2444	WHITE RIVER	LAKE SUPERIOR DIST PWR CO	NON	1000		WI	WHITE	05/03/1966	12/31/1993
* 2445	CENTER RUTLAND	VERMONT MARBLE CO	NON	275		VT	OTTER CR	08/19/1965	12/31/1993
* 2446	DIXON	COMMONWEALTH EDISON CO	MON	3200		IL	ROCK	04/17/1975	12/31/1993
* 2447	ALCONA	CONSUMERS POWER CO	MON	8000		MI	AU SABLE	05/14/1968	12/31/1993
* 2448	MIO	CONSUMERS POWER CO	MON	5000		MI	AU SABLE	05/14/1968	12/31/1993
* 2449	LOUD	CONSUMERS POWER CO	MON	4000		MI	AU SABLE	05/07/1968	12/31/1993
* 2450	COOKE	CONSUMERS POWER CO	MON	9000		MI	AU SABLE	05/14/1968	12/31/1993
* 2451	ROGERS	CONSUMERS POWER CO	MON	6000		MI	MUSKEGON	05/24/1965	12/31/1993
* 2452	HARDY	CONSUMERS POWER CO	MON	30000		MI	MUSKEGON	05/24/1968	12/31/1993
* 2453	FIVE CHANNELS	CONSUMERS POWER CO	MON	6000		MI	AU SABLE	01/09/1967	12/31/1993
* 2454	SYLVAN	MINNESOTA POWER & LIGHT CO	MON	1800		MN	CROW WING	06/28/1968	12/31/1993
* 2456	AYERS ISLAND	PUBLIC SERVICE CO OF N H	MON	8400		NH	PEMIGEWASSET	03/20/1967	12/31/1993
* 2457	EASTMAN FALLS	PUBLIC SERVICE CO OF N H	MON	4600		NH	PEMIGEWASSET	12/31/1969	12/31/1987
* 2458	PENOBSCOT	GT NORTHERN NEKOOSA CORP	MON	0		ME	PENOBSCOT W BR	10/14/1968	12/31/1993
* 2458	PENOBSCOT	GT NORTHERN NEKOOSA CORP	MON	8200		ME	PENOBSCOT W BR	10/14/1968	12/31/1993
* 2458	PENOBSCOT	GT NORTHERN NEKOOSA CORP	MON	8000		ME	PENOBSCOT W BR	10/14/1968	12/31/1993
* 2458	PENOBSCOT	GT NORTHERN NEKOOSA	MON	16950		ME	PENOBSCOT W BR	10/14/1968	12/31/1993

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2458	PENOBSCOT	GT NORTHERN NEKOOSA CORP	MON	7370		ME	PENOBSCOT W BR	10/14/1968	12/31/1993
2459	LAKE LYNN	WEST PENN POWER CO	MON	51200		WV	CHEAT	10/21/1970	12/31/1993
2464	WEED DAM	GRESHAM VILLAGE OF	NOP	630		WI	RED	07/13/1965	06/30/2015
2465	HOLLIDAYS BRIDGE	DUKE POWER CO	MON	3500		SC	SALUDA	05/09/1967	12/31/1993
2466	NIAGARA	APPALACHIAN POWER CO	MON	2400		VA	ROANOKE	03/26/1968	12/31/1993
2467	MERCED FALLS	PACIFIC GAS AND ELEC CO	MON	3440		CA	MERCED	07/28/1969	02/28/2014
2468	CROTON	CONSUMERS POWER CO	MON	8849		MI	MUSKEGON	05/24/1968	12/31/1993
2471	STURGEON RIVER	WISCONSIN ELECTRIC P WR CO	NON	800		MI	STURGEON	11/16/1966	12/31/1993
2473	CROWLEY RAPIDS	FLAMBEAU PAPER CORP	NON	1500		WI	FLAMBEAU N FK	09/30/1969	12/31/1993
2474	OSWEGO RIVER	NIAGARA MOHAWK POWER CORP	MON	1250		NY	OSWEGO	05/27/1968	12/31/1993
2474	OSWEGO RIVER	NIAGARA MOHAWK POWER CORP	MON	8000		NY	OSWEGO	05/27/1968	12/31/1993
2474	OSWEGO RIVER	NIAGARA MOHAWK POWER CORP	MON	8800		NY	OSWEGO	05/27/1968	12/31/1993
2475	THORNAPPLE	LAKE SUPERIOR DIST P WR CO	NON	1400		WI	FLAMBEAU	04/22/1965	12/31/1993
2476	JERSEY	WISCONSIN PUB SERV CORP	NON	512		WI	TOMAHAWK	08/09/1966	12/31/1993
2482	HUDSON	NIAGARA MOHAWK POWER CORP	MON	44400		NY	HUDSON	07/30/1968	12/31/1993
2482	HUDSON	NIAGARA MOHAWK POWER CORP	MON	28800		NY	HUDSON	07/30/1968	12/31/1993
2482	HUDSON	NIAGARA MOHAWK POWER CORP	MON	3800		NY	HUDSON	07/30/1968	05/18/1984
2482	HUDSON	NIAGARA MOHAWK POWER CORP	MON	4800		NY	HUDSON	07/30/1968	05/18/1984
2482	HUDSON	NIAGARA MOHAWK POWER CORP	MON	2250		NY	HUDSON	07/30/1968	05/18/1984
2484	GRESHAM	GRESHAM VILLAGE OF	NOP	275		WI	RED	01/16/1974	12/31/1987
2485	NORTHFIELD MT	WESTERN MASS ELECTRIC CO	MON	1000000		MA	CONNECTICUT	05/14/1968	04/30/2018
2486	PINE	WISCONSIN ELECTRIC P WR CO	MON	3600		WI	PINE	09/26/1967	12/31/1993
• 2487	HOOSIC FALLS	HYDRO-POWER INC	NON	0	1050	NY	HOOSIC RIVER	06/03/1966	12/31/1993
• 2489	CAVENDISH	CENTRAL VERMONT P S CORP	NON	1440		VT	BLACK	06/11/1969	12/31/1993
• 2490	TAFTSVILLE	CENTRAL VERMONT P S CORP	NON	500		VT	OTTAUQUECHEE	06/03/1966	12/31/1993
2491	JIM FALLS	NORTHERN STATES POWER CO	MON	14400	34800	WI	CHIPPEWA	07/24/1984	07/30/2033
• 2492	VANCEBORO RES	GEORGIA PACIFIC CORP	MON	0		ME	ST CROIX	04/04/1966	03/01/2016
• 2493	SNOQUALMIE FALLS	PUGET SOUND POWER & LIGHT CO	MON	41690		WA	SNOQUALMIE	05/13/1975	12/31/1993
• 2496	LEABURG	EUGENE CITY OF	MOP	13500		OR	MCKENZIE	06/03/1968	12/31/1993
• 2497	MT TOM MILL	LINWEAVE INC	NON	400		MA	CONNECTICUT CANAL	04/02/1975	02/28/1991
• 2500	MECHANICVILLE	NIAGARA MOHAWK POWER CORP	MON	4500		NY	HUDSON	07/31/1968	05/18/1984
• 2503	KEOWEE & JOCASSEE	DUKE POWER CO	MON	157500		SC	KEOWEE & LITTLE	09/01/1966	08/31/2016
• 2503	KEOWEE & JOCASSEE	DUKE POWER CO	MON	612000		SC	KEOWEE	09/01/1966	08/31/2016
• 2506	ESCANABA	ESCANABA PAPER CO	MON	4740		MI	ESCANBA	04/12/1976	12/31/1993
• 2506	ESCANABA	ESCANABA PAPER CO	MON	2500		MI	ESCANABA	04/12/1976	12/31/1993
• 2506	ESCANABA	ESCANABA PAPER CO	MON	0		MI	ESCANABA	04/12/1976	12/31/1993
• 2506	ESCANABA	ESCANABA PAPER CO	MON	1950		MI	ESCANABA RIVER	04/12/1976	12/31/1993
• 2508	TENTH STREET	NORWICH CITY OF	NOP	1400		CT	SHETUCKET	04/15/1965	12/31/1993

*	2509	SHENANDOAH	POTOMAC EDISON CO	MON	862		VA	SHENANDOAH S FK	06/17/1966	12/31/1993
*	2510	WALTERVILLE	EUGENE CITY OF	MOP	8000		OR	MCKENZIE	05/23/1967	12/31/1993
*	2512	HAWKS NEST & GLEN FERRIS	ELKEM METALS COMPANY	MON	5450		WV	KANAWHA	03/09/1967	12/31/1987
*	2512	HAWKS NEST & GLEN FERRIS	ELKEM METALS COMPANY	MON	102000		WV	NEW	03/09/1967	12/31/1987
*	2513	ESSEX NO 19	GREEN MOUNTAIN POWER CORP	MON	7200		VT	WINOOSKI	01/21/1969	12/31/1993
*	2514	BYLLESBY & BUCK	APPALACHIAN POWER CO	MON	8585		VA	NEW	04/03/1978	12/31/1993
*	2514	BYLLESBY & BUCK	APPALACHIAN POWER CO	MON	21600		VA	NEW	04/03/1978	12/31/1993
*	2515	HARPERS FERRY	POTOMAC EDISON CO	MON	600		WV	POTOMAC	03/14/1966	12/31/1993
*	2516	DAM NO 4	POTOMAC EDISON CO	MON	1000	900	WV	POTOMAC	12/07/1976	12/31/2003
*	2517	DAM NO 5	POTOMAC EDISON CO	MON	1120		WV	POTOMAC	12/07/1976	12/31/2003
*	2519	NORTH GORHAM	CENTRAL MAINE POWER CO	MON	2250		ME	PRESUMPSCOT	12/06/1966	12/31/1993
*	2520	MATTACEUNK	GT NORTHERN NEKOOSA CORP	MON	19200		ME	PENOBSCOT	01/09/1967	12/31/1987
*	2522	JOHNSON FALLS	WISCONSIN PUB SERV CORP	MON	3520		WI	PESHTIGO	08/21/1968	12/31/1993
*	2523	OCONTO FALLS	WISCONSIN ELECTRIC PWR CO	MON	1320		WI	OCONTO	04/14/1967	12/31/1993
*	2524	SALINA	GRAND RIVER DAM AUTHORITY	MOP	260000		OK	SALINA CREEK	01/03/1966	11/30/2015
*	2525	CALDRON FALLS	WISCONSIN PUB SERV CORP	MON	6400		WI	PESHTIGO	06/11/1969	12/31/1993
*	2527	SKELTON	CENTRAL MAINE POWER CO	MON	16800		ME	SACO	08/20/1968	12/31/1993
*	2528	CATARACT	CENTRAL MAINE POWER CO	MON	6650		ME	SACO	08/20/1968	12/31/1987
*	2529	BONNY EAGLE	CENTRAL MAINE POWER CO	MON	7200		ME	SACO	11/19/1970	12/31/1993
*	2530	HIRAM	CENTRAL MAINE POWER CO	MON	10900	8500	ME	SACO	12/22/1982	11/30/2022
*	2531	WEST BUXTON	CENTRAL MAINE POWER CO	MON	2625		ME	SACO	02/06/1968	12/31/1987
*	2531	WEST BUXTON	CENTRAL MAINE POWER CO	MON	4000		ME	SACO RIVER	02/06/1968	12/31/1987
*	2532	LITTLE FALLS	MINNESOTA POWER & LIGHT CO	MON	3520	1250	MN	MISSISSIPPI	07/01/1969	12/31/1993
*	2533	BRAINERD	POTLATCH CORPORATION	MON	3342		MN	MISSISSIPPI	12/10/1976	12/31/1993
*	2534	MILFORD	BANGOR HYDRO ELECTRIC CO	MON	6400		ME	PENOBSCOT	12/31/1969	12/31/1990
*	2535	STEVENS CREEK	SOUTH CAROLINA ELEC & GASCO	MON	18880		GA	SAVANNAH	01/20/1970	12/31/1993
*	2536	LITTLE QUINNESEC FALLS	NIAGARA OF WISC PAPER	MON	8388		WI	MENOMINEE RIVER	04/29/1975	06/30/1993
*	2538	BEEBEE ISLAND	NIAGARA MOHAWK POWER CORP	MON	8000		NY	BLACK	05/27/1968	12/31/1993
*	2539	SCHOOL ST COHOES	NIAGARA MOHAWK POWER CORP	MON	38800		NY	MOHAWK	06/11/1969	12/31/1993
*	2541	CASCADE	UTILITIES HOLDING COMPANY	MON	825		NC	LITTLE	10/13/1970	12/31/1993
*	2543	MILLTOWN	MONTANA POWER CO THE	MON	3040		MT	CLARK FK	05/01/1965	12/31/1993
*	2544	MEYERS FALLS	WASHINGTON WATER PWR CO	MON	1200		WA	COLVILLE	08/24/1970	12/31/1993
*	2545	SPOKANE RIVER	WASHINGTON WATER PWR CO	MON	14750		WA	SPOKANE	08/17/1972	08/01/2007
*	2545	SPOKANE RIVER	WASHINGTON WATER PWR CO	MON	70000		WA	SPOKANE	08/17/1972	08/01/2007
*	2545	SPOKANE RIVER	WASHINGTON WATER PWR	MON	12000		WA	SPOKANE	08/17/1972	08/01/2007

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• 2545	SPOKANE RIVER	WASHINGTON WATER PWR CO	MON	10000		WA	SPOKANE	08/17/1972	08/01/2007
• 2545	SPOKANE RIVER	WASHINGTON WATER PWR CO	MON	7200		WA	SPOKANE	08/17/1972	08/01/2007
• 2546	SANDSTONE	WISCONSIN PUB SERV CORP	MON	3840		WI	PESHTIGO	01/14/1969	12/31/1993
• 2547	SWANTON VILLAGE	SWANTON VILLAGE OF	MOP	4600	3400	VT	MISSISQUOI	05/24/1984	04/30/2024
• 2548	LYONS FALLS	GEORGIA PACIFIC CORP	MON	1050		NY	BLACK	05/10/1979	12/31/1988
• 2548	LYONS FALLS	GEORGIA PACIFIC CORP	MON	2000		NY	BLACK	05/10/1979	12/31/1988
• 2548	LYONS FALLS	GEORGIA PACIFIC CORP	MON	5090		NY	BLACK	05/10/1979	12/31/1988
• 2550	WEYAUWEGA	WISCONSIN ELECTRIC PWR CO	NON	400		WI	WAUPACA	08/26/1968	12/31/1993
• 2551	BUCHANAN	INDIANA AND MICH ELEC CO	MON	4105		MI	ST JOSEPH	12/15/1975	12/31/1993
• 2552	FORT HALIFAX	CENTRAL MAINE POWER CO	NON	1500		ME	SEBASTICOOK	09/12/1968	12/31/1993
• 2554	FEEDER DAM	MOREAU MANUFACTURING CORP	MON	6000		NY	HUDSON	07/31/1968	12/31/1993
• 2555	AUTOMATIC	CENTRAL MAINE POWER CO	NON	800		ME	MESSALONSKEE	08/30/1968	12/31/1993
• 2556	UNION GAS	CENTRAL MAINE POWER CO	NON	1500		ME	MESSALONSKEE	08/30/1968	12/31/1993
• 2557	RICE RIPS	CENTRAL MAINE POWER CO	MON	1600		ME	MESSALONSKEE	02/24/1969	12/31/1993
• 2558	OTTER CREEK	VERMONT MARBLE CO	MON	1400		VT	OTTER CR	02/23/1976	03/31/2012
• 2558	OTTER CREEK	VERMONT MARBLE CO	MON	6930		VT	OTTER CR	02/23/1976	03/31/2012
• 2558	OTTER CREEK	VERMONT MARBLE CO	MON	1600		VT	OTTER CR	02/23/1976	03/31/2012
• 2559	OAKLAND	CENTRAL MAINE POWER CO	MON	2800		ME	MESSALNOSKEE STREAM	02/24/1969	12/31/1993
• 2560	POTATO RAPIDS	WISCONSIN PUB SERV CORP	NON	1380		WI	PESHTIGO	08/22/1968	12/31/1993
• 2561	NIANGUA	SHO ME POWER CORP	MON	3000		MO	NIANGUA	06/11/1975	12/31/1993
• 2564	ORIENTA	LAKE SUPERIOR DIST PWR CO	NON	800		WI	IRON	10/02/1966	12/31/1993
• 2566	WEBBER	CONSUMERS POWER CO	MON	2500		MI	GRAND	03/24/1981	04/01/2001
• 2567	WISSOTA	NORTHERN STATES POWER CO	MON	35280		WI	CHIPPEWA	06/19/1980	06/30/2000
• 2569	BLACK RIVER	NIAGARA MOHAWK POWER CORP	MON	2000		NY	BLACK	09/15/1977	12/31/1993
• 2569	BLACK RIVER	NIAGARA MOHAWK POWER CORP	MON	6000		NY	BLACK	09/15/1977	12/31/1993
• 2569	BLACK RIVER	NIAGARA MOHAWK POWER CORP	MON	5400		NY	BLACK	09/15/1977	12/31/1993
• 2569	BLACK RIVER	NIAGARA MOHAWK POWER CORP	MON	10800		NY	BLACK	09/15/1977	12/31/1993
• 2569	BLACK RIVER	NIAGARA MOHAWK POWER CORP	MON	5400		NY	BLACK	09/15/1977	12/31/1993
• 2570	RACINE L & D	OHIO POWER CO	MON	47500		OH	OHIO	12/27/1973	11/30/2023
• 2572	RIPOGENUS	GREAT NORTHERN PAPER CO	MON	37530		ME	PENOBSCOT W BR	12/02/1969	12/31/1993
• 2574	LOCKWOOD	MILSTAR MFG CORP	MON	4800	1750	ME	KENNEBEC	12/31/1969	12/31/1993
• 2576	HOUSATONIC	CONNECTICUT LT & PWR CO	MON	37200		CT	HOUSATONIC	09/18/1981	07/31/2001
• 2576	HOUSATONIC	CONNECTICUT LT & PWR CO	MON	7200		CT	HOUSATONIC	09/18/1981	07/31/2001
• 2576	HOUSATONIC	CONNECTICUT LT & PWR CO	MON	30000		CT	HOUSATONIC	09/18/1981	07/31/2001
• 2576	HOUSATONIC	CONNECTICUT LT & PWR CO	MON	30560		CT	HOUSATONIC	09/18/1981	07/31/2001

*	2579	TWIN BRANCH	INDIANA AND MICH ELEC CO	MON	7260		IN	ST JOSEPH	06/21/1977	12/31/1993
*	2580	TIPPY	CONSUMERS POWER CO	MON	20000		MI	MANISTEE	04/18/1977	12/31/1993
*	2581	PESHTIGO	WISCONSIN PUB SERV CORP	NON	586		WI	PESHTIGO	08/08/1968	12/31/1993
*	2582	STATION NO 2	ROCHESTER GAS AND EL CORP	MON	6500		NY	GENESEE	06/05/1967	12/31/1993
*	2583	STATION NO 5	ROCHESTER GAS AND EL CORP	MON	38250		NY	GENESEE	07/05/1967	12/31/1993
*	2584	STATION NO 26	ROCHESTER GAS AND EL CORP	MON	3400		NY	GENESEE	06/30/1967	12/31/1993
*	2585	IDOLS	DUKE POWER CO	MON	1610		NC	YADKIN	07/28/1980	07/31/2000
*	2586	GANTT	ALABAMA ELECTRIC COOP INC	MON	1200	1850	AL	CONECUH	05/19/1980	04/30/2005
*	2586	GANTT	ALABAMA ELECTRIC COOP INC	MON	0		AL	CONECUH	05/19/1980	04/30/2005
*	2587	SUPERIOR FALLS	LAKE SUPERIOR DIST PWR CO	NON	1320		WI	MONTREAL	10/09/1968	12/31/1993
*	2588	LITTLE CHUTE	KAUKAUNA CITY OF	MOP	5300		WI	FOX	08/22/1980	07/31/2000
*	2589	MARQUETTE	MARQUETTE CITY OF	MOP	700		MI	DEAD	07/30/1981	07/30/2001
*	2589	MARQUETTE	MARQUETTE CITY OF	MOP	4200		MI	DEAD	07/30/1981	07/30/2001
*	2589	MARQUETTE	MARQUETTE CITY OF	MOP	0		MI	DEAD	07/30/1981	07/30/2001
*	2590	WISCONSIN RIVER DIVISION	CONSOLIDATED WATER PWR CO	MON	1800		WI	WISCONSIN	01/16/1975	06/30/1993
*	2593	BEAVER RIVER	BEAVER FALLS POWER CO	NON	1500		NY	BEAVER	08/26/1968	12/31/1987
*	2594	LAKE CREEK	MONTANA LT AND PWR	MON	4500		MT	LAKE CR	12/16/1981	11/30/2011
*	2595	HIGH FALLS	WISCONSIN PUB SERV CORP	MON	7000		WI	PESHTIGO	01/12/1976	12/31/1993
*	2596	STATION NO 160	ROCHESTER GAS AND EL CORP	NON	340		NY	GENESEE	04/13/1978	12/31/1993
*	2597	FALLS VILLAGE	CONNECTICUT LT & PWR CO	MON	9000		CT	HOUSATONIC	08/28/1981	08/30/2001
*	2599	HODENPYL	CONSUMERS POWER CO	MON	18000		MI	MANISTEE	02/03/1976	12/31/1993
*	2600	STANFORD	BANGOR HYDRO-ELECTRIC CO	MON	3860	9200	ME	PENOBSCOT	06/26/1984	05/31/2024
*	2601	BRYSON	NANTAHALA PWR AND LT CO	MON	980		NC	OCONALUFTEE	07/22/1980	07/31/2005
*	2602	DILLSBORO	NANTAHALA PWR AND LT CO	MON	225		NC	TUCKASEGEE	07/17/1980	07/31/2005
*	2603	FRANKLIN	NANTAHALA PWR AND LT CO	MON	1040		NC	LITTLE TENNESSEE	07/22/1980	07/31/2005
*	2607	SPENCER MOUNTAIN	DUKE POWER CO	NON	640		NC	SOUTH FORK	03/02/1[illegible]	12/31/1993
*	2608	WEST SPRINGFIELD	PREMOID CORP ET AL	NON	1400		MA	WESTFIELD	09/09/1968	12/31/1993
*	2609	PALMER FALLS & CURTIS	INTERNATIONAL PAPER CO	MON	5000	10300	NY	HUDSON	05/22/1980	04/30/2000
*	2609	PALMER FALLS & CURTIS	INTERNATIONAL PAPER CO	MON	7500	48000	NY	HUDSON	05/22/1[illegible]	04/30/2000
*	2610	SAXON FALLS	LAKE SUPERIOR DIST PWR CO	NON	1250		MI	MONTREAL	12/10/1968	12/31/1989
*	2611	WINSLOW	SCOTT PAPER CO	MON	3730		ME	KENNEBEC	07/01/1969	12/31/1993
*	2612	FLAGSTAFF RES	CENTRAL MAINE POWER CO	MON	0		ME	DEAD	04/12/1979	12/31/1997
*	2613	MOXIE RES	CEN MAINE POWER CO ET AL	MON	0		ME	MOXIE	06/11/1969	12/31/1993
*	2614	GREENUP	VANCEBURG CITY OF	MOP	70560		OH	OHIO	03/29/1976	02/28/2026
*	2615	BRASSUA RES	CEN MAINE POWER CO ET AL	MON	0		ME	MOOSE	09/16/1977	12/31/1993
*	2616	HOOSIC	NIAGARA MOHAWK POWER CORP	MON	13120		NY	HOOSIC	01/22/1969	12/31/1993

* 2616	HOOSIC	NIAGARA MOHAWK POWER CORP	MON	4800		NY	HOOSIC	01/22/1969	12/31/1993
* 2618	GRAND LAKE RES	GEORGIA PACIFIC CORP	MON	0		ME	ST CROIX W BR	09/04/1980	09/30/2000
* 2618	GRAND LAKE RES	GEORGIA PACIFIC CORP	MON			ME	WEST BRANCH, ST CROIX	09/04/1980	09/30/2000
* 2619	MISSION	NANTAHALA PWR AND LT CO	MON	1800		NC	HIWASSEE	08/04/1980	08/31/2005
* 2620	LOCKHART	LOCKHART POWER CO	MON	12300		SC	BROAD	04/18/1980	03/31/2000
* 2621	PACOLET S C	PACOLET MANUFACTURING CO	NON	800		SC	PACOLET	02/05/1982	01/31/2012
* 2622	TURNERS FALLS	HAMMERMILL PAPER CO	NON	937		MA	CONNECTICUT CANAL	02/25/1969	02/28/1991
* 2628	R L HARRIS	ALABAMA POWER CO	MON	135000		AL	TALLAPOOSA	12/27/1973	11/30/2023
* 2629	MORRISVILLE	MORRISVILLE VILLAGE OF	MOP		2500	VT	GREEN RIVER	08/28/1981	04/30/2015
* 2629	MORRISVILLE	MORRISVILLE VILLAGE OF	MOP	0		VT	LAMOILLE	08/28/1981	04/30/2015
* 2629	MORRISVILLE	MORRISVILLE VILLAGE OF	MOP	2000		VT	LAMOILLE	08/28/1981	04/30/2015
* 2629	MORRISVILLE	MORRISVILLE VILLAGE OF	MOP	1800		VT	LAMOILLE	08/28/1981	04/30/2015
* 2629	MORRISVILLE	MORRISVILLE VILLAGE OF	MOP	1700		VT	LAMOILLE	08/28/1981	04/30/2015
* 2630	PROSPECT 1,2 & 4	PACIFIC POWER & LIGHT CO	MON	36750		OR	ROGUE	07/28/1980	07/01/2005
* 2631	W. RONOCO	HAMMERMILL PAPER CO	MON	2690		MA	WESTFIELD	06/02/1981	09/01/2001
* 2634	GREAT NORTHERN	GT NORTHERN NEKOOSA CORP	NON	0		ME	PENOBSCOT W BR	04/18/1980	04/30/2000
* 2634	GREAT NORTHERN	GT NORTHERN NEKOOSA CORP	NON			ME	CAUCOMGOMOC	04/18/1980	04/30/2000
* 2634	GREAT NORTHERN	GT NORTHERN NEKOOSA CORP	NON			ME	RAGGED	04/18/1980	04/30/2000
* 2634	GREAT NORTHERN	GT NORTHERN NEKOOSA CORP	NON			ME	PENOBSCOT W BR	04/18/1980	04/30/2000
* 2639	CORNELL	NORTHERN STATES POWER CO	MON	30750		WI	CHIPPEWA	12/26/1973	11/30/2023
* 2640	UPPER HYDRO	FLAMBEAU PAPER CORP	NON	900		WI	FLAMBEAU N FK	08/05/1976	12/31/1993
* 2643	BEND	PACIFIC POWER & LIGHT CO	NON	1110		OR	DESCHUTES	03/20/1970	12/31/1993
* 2644	KANSAS RIVER	BOWERSOCK MLS AND PWR CO	MON	1850		KS	KANSAS	03/24/1977	12/31/1987
* 2645	BEAVER	NIAGARA MOHAWK POWER CORP	MON	4800		NY	BEAVER	07/03/1978	12/31/1993
* 2645	BEAVER	NIAGARA MOHAWK POWER CORP	MON	1800		NY	BEAVER	07/03/1978	12/31/1993
* 2645	BEAVER	NIAGARA MOHAWK POWER CORP	MON	4500		NY	BEAVER	07/03/1978	12/31/1993
* 2645	BEAVER	NIAGARA MOHAWK POWER CORP	MON	1500		NY	BEAVER	07/03/1978	12/31/1993
* 2645	BEAVER	NIAGARA MOHAWK POWER CORP	MON	8000		NY	BEAVER	07/03/1978	12/31/1993
* 2645	BEAVER	NIAGARA MOHAWK POWER CORP	MON	6050		NY	BEAVER	07/03/1978	12/31/1993
* 2645	BEAVER	NIAGARA MOHAWK POWER CORP	MON	15000		NY	BEAVER	07/03/1978	12/31/1993
* 2645	BEAVER	NIAGARA MOHAWK POWER CORP	MON	2960		NY	BEAVER	07/03/1978	12/31/1993
* 2651	ELKHART	INDIANA AND MICH ELEC CO	MON	3440		IN	ST JOSEPH	05/08/1980	05/31/2000
* 2652	BIG FORK	PACIFIC POWER & LIGH	MON	4150		MT	SWAN	09/24/1976	04/30/1990

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*	2655	EAGLE & PHENIX	FIELDCREST MILLS INC	MON	4760		GA	CHATTAHOOCHEE	06/29/1975	12/31/1993
*	2659	POWERDALE	PACIFIC POWER & LIGHT CO	MON	6000		OR	HOOD	03/14/1980	02/28/2000
*	2660	FORREST CITY RES	GEORGIA PACIFIC CORP	MON	0		ME	ST CROIX E BR	08/27/1980	08/31/2000
*	2661	HAT CREEK NO 1 & NO 2	PACIFIC GAS AND ELEC CO	MON	10100		CA	HAT CR	10/29/1975	09/30/2000
*	2661	HAT CREEK NO 1 & NO 2	PACIFIC GAS AND ELEC CO	MON	10000		CA	HAT CR	10/29/1975	09/30/2000
*	2662	SCOTLAND	CONNECTICUT LT & PWR CO	MON	2000		CT	SHETUCKET	10/05/1982	08/31/2012
*	2663	PILLAGER	MINNESOTA POWER & LIGHT CO	MON	1520		MN	CROW WING	08/14/1980	05/11/1997
*	2666	MEDWAY	BANGOR HYDRO ELECTRIC CO	MON	3440		ME	PENOBSCOT W BR	03/29/1979	03/31/1999
*	2669	BEAR SWAMP P S	NEW ENGLAND POWER CO	MON	600000		MA	DEERFIELD RIVER	04/28/1970	03/31/2020
*	2669	BEAR SWAMP P S	NEW ENGLAND POWER CO	MON	11250		MA	DEERFIELD RIVER	04/28/1970	03/31/2020
*	2670	DELLS	N STATES PWR CO & CITY OF EAU CLAIRE	MOP	10200		WI	CHIPPEWA	09/30/1980	09/20/2000
*	2671	MOOSEHEAD LAKE	KENNEBEC WATER POWER CO	NON	0		ME	KENNEBEC	08/05/1976	12/31/1993
*	2674	VERGENNES NO 9	GREEN MOUNTAIN POWER CORP	MON	2400		VT	OTTER CR	06/29/1979	05/31/1999
*	2677	BADGER-RAPIDE CROCHE	KAUKAUNA CITY OF	MOP	2000		WI	FOX	06/07/1977	10/31/1988
*	2677	BADGER-RAPIDE CROCHE	KAUKAUNA CITY OF	MOP	3600		WI	FOX	06/07/1977	10/31/1988
*	2677	BADGER-RAPIDE CROCHE	KAUKAUNA CITY OF	MOP	2400		WI	FOX	06/07/1977	10/31/1988
*	2680	LUDINGTON P S	CONSUMERS & DETROIT EDISON	MON	1657500		MI	LAKE MICHIGAN	07/30/1969	06/30/2019
*	2684	ARPIN	NORTH CENTRAL POWER CO	NON	1570		WI	CHIPPEWA EAST FK	06/03/1969	04/30/2019
*	2685	BLENHEIM&GILBOA P S	POWER AUTHORITY OF THE STATE OF NY	MOP	1000000		NY	SCHOHARIE CR	06/06/1969	04/30/2019
*	2686	WEST FORK	NANTAHALA PWR AND LT CO	MON	3000		NC	TUCKASEGEE W FK	01/28/1981	01/30/2006
*	2686	WEST FORK	NANTAHALA PWR AND LT CO	MON	21600		NC	TUCKASEGEE W FK	01/28/1981	01/30/2006
*	2687	PIT NO 1	PACIFIC GAS AND ELEC CO	MON	63000		CA	FALL CR	11/06/1970	12/31/1995
*	2689	OCONTO FALLS	SCOTT PAPER CO	NON	1860		WI	OCONTO RIVER	01/18/1973	12/31/1993
*	2692	NANTAHALA	NANTAHALA PWR AND LT CO	MON	43200		NC	NANTAHALA	02/06/1981	02/28/2006
*	2694	QUEENS CREEK	NANTAHALA PWR AND LT CO	NON	1440		NC	QUEENS CREEK	10/20/1976	09/30/2001
*	2696	STUYVESANT FALLS	NIAGARA MOHAWK POWER CORP	MON	2800		NY	KINDERHOOK CR	08/07/1980	08/30/2005
*	2697	CEDAR FALLS	NORTHERN STATES POWER CO	MON	6000		WI	RED CEDAR RIVER	01/06/1981	01/30/2001
*	2698	EAST FORK	NANTAHALA PWR AND LT CO	MON	10800		NC	TUCKASEGEE E FK	01/23/1981	02/01/2006
*	2698	EAST FORK	NANTAHALA PWR AND LT CO	MON	9000		NC	TUCKASEGEE E FK	01/23/1981	02/01/2006
*	2698	EAST FORK	NANTAHALA PWR AND LT CO	MON	6375		NC	TUCKASEGEE E FK	01/23/1981	02/01/2006
*	2699	ANGELS	PACIFIC GAS AND ELEC CO	NON	1400		CA	ANGELS CR	11/06/1970	12/31/1995
*	2701	TRENTON FALLS & PROSPECT	NIAGARA MOHAWK POWER CORP	MON	24200	6000	NY	CANADA CR W	03/18/1983	02/28/2023
*	2701	TRENTON FALLS & PROSPECT	NIAGARA MOHAWK POWER CORP	MON	17325		NY	CANADA CR W	03/18/1983	02/28/2023
*	2705	NEWHALEM	SEATTLE DEPT OF LIGH	MOP	1750		WA	NEWHALEM CR	01/01/1970	12/31/1994

		TING							
* 2709	DAVIS P S	MONONGAHELA PWR CO ET AL	MON		1000000	WV	BLACKWATER RIVER	04/21/1977	03/31/2027
* 2710	ORONO	BANGOR HYDRO-ELECTRIC CO	MON	2332		ME	STILLWATER	11/10/1977	12/31/1993
* 2711	TREGO	NORTHERN STATES POWER CO	MON	1200		WI	NAMEKAGON	03/11/1977	03/31/1993
* 2712	STILLWATER	BANGOR HYDRO-ELECTRIC CO	MON	1950		ME	PENOBSCOT STILLWATER BR	08/10/1978	12/31/1993
* 2713	OSWEGATCHIE	NIAGARA MOHAWK POWER CORP	MON	15000		NY	OSWEGATCHIE	01/10/1983	12/31/2012
* 2713	OSWEGATCHIE	NIAGARA MOHAWK POWER CORP	MON	6000		NY	OSWEGATCHIE	01/10/1983	12/31/2012
* 2713	OSWEGATCHIE	NIAGARA MOHAWK POWER CORP	MON	2680		NY	OSWEGATCHIE	01/10/1983	12/31/2012
* 2713	OSWEGATCHIE	NIAGARA MOHAWK POWER CORP	MON	2700		NY	OSWEGATCHIE	01/10/1983	12/31/2012
* 2713	OSWEGATCHIE	NIAGARA MOHAWK POWER CORP	MON	1040	0	NY	OSWEGATCHIE	01/10/1983	12/31/2012
* 2713	OSWEGATCHIE	NIAGARA MOHAWK POWER CORP	MON	560	0	NY	OSWEGATCHIE	01/10/1983	12/31/2012
* 2715	COMBINED LOCKS	KAUKAUNA CITY OF	MON	2830		WI	FOX	09/23/1980	09/30/2000
* 2716	BATH COUNTY	VIRGINIA ELECTRIC & POWER CO	MON		2100000	VA	LITTLE BACK CR	01/10/1977	08/31/2026
* 2720	STURGEON FALLS	NORWAY CITY OF	MOP	3500	1800	WI	MENOMINEE	08/31/1984	07/31/2004
* 2721	HOWLAND	BANGOR HYDRO-ELECTRIC CO	MON	1875		ME	PISCATAQUIS	09/12/1980	09/30/2000
* 2722	PIONEER	UTAH POWER & LIGHT CO	MON	5000		UT	OGDEN	10/10/1980	08/31/2000
* 2724	HAMILTON	HAMILTON CITY OF	NOP	1500		OH	MIAMI	09/04/1981	09/29/2001
* 2725	ROCKY MOUNTAIN P S	GEORGIA POWER CO	MON		675000	GA	HEATH CREEK	01/21/1977	12/31/2026
* 2726	MALAD	IDAHO POWER CO	MON	13500		ID	MALAD	08/09/1979	07/31/2004
* 2726	MALAD	IDAHO POWER CO	MON	7200		ID	MALAD	08/09/1979	07/31/2004
* 2727	ELLSWORTH-GRAHAM	BANGOR HYDRO-ELECTRIC CO	MON	8900		ME	UNION	04/12/1977	12/31/1987
* 2727	ELLSWORTH-GRAHAM	BANGOR HYDRO-ELECTRIC CO	MON	0		ME	UNION	04/12/1977	12/31/1987
* 2731	WEYBRIDGE	CENTRAL VERMONT PUBLIC SERVICE CORP	MON	3000		VT	OTTER	05/02/1980	05/30/2003
* 2735	HELMS PUMPED STORAGE	PACIFIC GAS AND ELEC CO	MON		1050000	CA	HELMS CR	05/18/1976	04/30/2026
* 2736	AMERICAN FALLS	IDAHO POWER CO	MON	92400		ID	SNAKE	03/31/1975	02/28/2025
* 2737	MIDDLEBURY&LOWER	CENTRAL VERMONT PUBLIC SERVICE CORP	MON	2250		VT	OTTER CREEK	07/08/1980	07/01/2000
* 2738	SARANAC	NEW YORK ST EL AND G CORP	MON	6400	6460	NY	SARANAC	09/23/1980	04/12/2006
* 2738	SARANAC	NEW YORK ST EL AND G CORP	MON	6273		NY	SARANAC	09/23/1980	04/12/2006
* 2738	SARANAC	NEW YORK ST EL AND G CORP	MON	2400	3000	NY	SARANAC	09/23/1980	04/12/2006
* 2738	SARANAC	NEW YORK ST EL AND G CORP	MON	14100	6460	NY	SARANAC	09/23/1980	04/12/2006
* 2739	MELDAHL	VANCEBURG CITY OF	MOP		70300	KY	OHIO	03/05/1982	02/29/2032
* 2740	BAD CREEK P.S.	DUKE POWER CO	MON		1000000	SC	WHITEWATER	08/01/1977	07/31/2027
* 2741	PINE FLAT	KINGS RIVER CONSERVATION DIST	MON	165000		CA	KINGS RIVER	09/25/1979	08/31/2029
* 2742	SOLOMON GULCH	COPPER VALLEY ELEC ASSN INC	MON	18000		AK	SOLOMON	06/21/1978	05/31/2028
* 2743	TERROR LAKE	ALASKA POWER AUTHORITY	MON		20000	AK	TERROR	10/05/1981	10/31/2031

• 2744	PARK MILL & MENOMINEE	MENOMINEE COMPANY	MON	1744		WI	MENOMINEE	03/11/1985	02/28/2015
• 2744	PARK MILL & MENOMINEE	MENOMINEE COMPANY	MON	2240		WI	MENOMINEE	03/11/1985	02/28/2015
• 2758	CROCKER MILL	LINWEAVE INC	NON	280		MA	HOLYOKE CANAL	06/07/1977	02/28/1991
• 2761	UPPER MOUNTAIN	EL DORADO COUNTY WATER AGENCY &	MUP		42700	CA	PLUM CRK TRIB TO S FK AMER RIVER	12/31/1984	11/30/2034
• 2761	UPPER MOUNTAIN	EL DORADO COUNTY WATER AGENCY &	MOP		6900	CA	SOUTH FORK AMERICAN RIVER	12/31/1984	11/30/2034
• 2761	UPPER MOUNTAIN	EL DORADO COUNTY WATER AGENCY &	MOP		60800	CA	SOUTH FORK AMERICAN RIVER	12/31/1984	11/30/2034
• 2766	ALBION (D WHEEL)	LINWEAVE INC	NON	400		MA	HOLYOKE CANAL	07/06/1977	02/28/1991
• 2768	ALBION (A WHEEL)	LINWEAVE INC	NON	250		MA	HOLYOKE CANAL	07/06/1977	02/28/1991
• 2769	RAYSTOWN LAKE	ALLEGHENY ELECTRIC COOPERATIVE INC	MON		20100	PA	JUNIATA	11/10/1982	10/30/2032
• 2770	CROCKER MILL	LINWEAVE INC	NON	240		MA	HOLYOKE CANAL	07/06/1977	02/28/1991
• 2771	MONOTUCK MILL	LINWEAVE INC	NON	400		MA	HOLYOKE CANAL	07/06/1977	02/28/1991
• 2772	LINWEAVE(A WHEEL)	LINWEAVE INC	NON	460		MA	HOLYOKE CANAL	07/06/1977	02/28/1991
• 2775	LINWEAVE(D WHEEL)	LINWEAVE INC	NON	360		MA	HOLYOKE CANAL	07/19/1977	02/28/1991
• 2777	UPPER SALMON	IDAHO POWER CO	MON	34500		ID	SNAKE	06/13/1979	05/31/1999
• 2778	SHOSHONE FALLS	IDAHO POWER CO	MON	12400		ID	SNAKE	06/13/1979	05/31/1999
• 2780	MONTICELLO	SOLANO IRRIGATION DIST	MOP		11500	CA	PUTAH CR	01/29/1981	01/01/2031
• 2782	RED CREEK	PAROWAN CITY CORPORATION	NOP	500		UT	RED CREEK	04/13/1978	04/30/2003
• 2788	COLLIERSVILLE	F W E STAPENHORST INC	NON	1650		NY	SUSQUEHANNA	03/13/1979	02/28/2019
• 2790	LOWELL HYDRO	BOOTT HYDROPOWER INC	MON	1250	1110	MA	EASTERN CANAL	04/13/1983	04/30/2023
• 2790	LOWELL HYDRO	BOOTT HYDROPOWER INC	MON	1080		MA	EASTERN CANAL	04/13/1983	04/30/2023
• 2790	LOWELL HYDRO	BOOTT HYDROPOWER INC	MON	2100	400	MA	EASTERN CANAL	04/13/1983	04/30/2023
• 2790	LOWELL HYDRO	BOOTT HYDROPOWER INC	MON	1180		MA	HAMILTON CANAL	04/13/1983	04/30/2023
• 2790	LOWELL HYDRO	BOOTT HYDROPOWER INC	MON	530	265	MA	MERRIMACK CANAL	04/13/1983	04/30/2023
• 2790	LOWELL HYDRO	BOOTT HYDROPOWER INC	MON		15000	MA	MERRIMACK	04/13/1983	04/30/2023
• 2794	PICKELL, J.W.	PICKELL JACK W	NON	20		ID	SLAUGHTER CREEK	08/16/1979	08/30/2006
• 2800	LAWRENCE	LAWRENCE HYDRO ASSOC	MON	16800		MA	MERRIMACK	12/04/1978	11/30/2028
• 2801	GLENDALE	HEATHER MARY C	MON	240	160	MA	HOUSATONIC	11/23/1979	10/31/2009
• 2804	GOOSE	MAINE HYDRO DEV CORP	NON		200	ME	GOOSE	03/24/1980	02/29/2020
• 2804	GOOSE	MAINE HYDRO DEV CORP	NON	94		ME	GOOSE	03/24/1980	02/29/2020
• 2804	GOOSE	MAINE HYDRO DEV CORP	NON	55		ME	GOOSE	03/24/1980	02/29/2020
• 2804	GOOSE	MAINE HYDRO DEV CORP	NON		75	ME	GOOSE	03/24/1980	02/29/2020
• 2804	GOOSE	MAINE HYDRO DEV CORP	NON	0		ME	GOOSE	03/24/1980	02/29/2020
• 2808	BARKERS MILL	MAINE HYDRO DEV CORP	NON	1500		ME	LITTLE ANDROSCOGGIN	02/23/1979	01/31/2019
• 2809	AMERICAN TISSUE	GARDINER HYDRO COMPANY	NON	900		ME	COBBOSSEECONTEE	05/09/1979	04/30/2019
• 2814	GREAT FALLS	PATERSON MUN UTIL AUTH	MOP	10950	7500	NJ	PASSAIC	03/11/1981	02/28/2021
• 2816	NORTH HARTLAND	NORTH HARTLAND HYD ASSOC	MON		4000	VT	OTTAUQUECHEE RIVER	11/24/1981	11/30/2021
• 2818	GREEN LAKE	SITKA CITY & BOROUGH OF	MOP	16500		AK	VODOPAD	04/05/1979	03/31/2029
• 2821	PORTLAND NO 1 & NO 2	PORTLAND CITY OF	MOP	23750		OR	BULL RUN	03/22/1979	02/28/2029
• 2821	PORTLAND NO 1 & NO 2	PORTLAND CITY OF	MOP	11875		OR	BULL RUN	03/22/1979	02/28/2029
• 2823	BOISE CASCADE	BEAVER FALLS POWER CO	NON	1000		NY	BEAVER	10/18/1979	09/30/2019
• 2829	LOVELAND	LOVELAND CITY OF	NOP	900		CO	BIG THOMPSON R	06/30/1978	03/07/2016
• 2832	LUCKY PEAK	BOISE PROJ BD OF CONTROL	MON		87480	ID	BOISE	06/10/1980	05/31/2030
• 2835	RAINBOW FALLS	NEW YORK ST EL AND G CORP	MON	2112		NY	AUSABLE	11/26/1982	10/31/2002

* 2835	RAINBOW FALLS	NEW YORK ST EL AND G CORP	MON	0		NY	BLACK BROOK	11/26/1982	10/31/2002
* 2837	GRANBY	NIAGARA MOHAWK POWER CORP	MON	10000		NY	OSWEGO	04/07/1980	03/31/2020
* 2839	GREAT FALLS	LYNDONVILLE VILLAGE OF	MOP	2050		VT	PASSUMPSIC	06/29/1979	05/31/2019
* 2840	P.E.C. HEADWORKS	QUINCY-COLUMBIA BASIN IRRIGAT DIST	MOP		6500	WA	POTHOLES EAST CANAL	09/21/1982	09/30/2032
* 2841	LAKE MENDOCINO	UKIAH CITY OF	MOP		3500	CA	EAST FORK RUSSIAN RIVER	04/01/1982	03/31/2032
* 2842	IDAHO FALLS	IDAHO FALLS CITY OF	MOP	11000		ID	SNAKE	02/08/1979	01/31/2029
* 2842	IDAHO FALLS	IDAHO FALLS CITY OF	MOP	8000		ID	SNAKE	02/08/1979	01/31/2029
* 2842	IDAHO FALLS	IDAHO FALLS CITY OF	MOP	8000		ID	SNAKE	02/08/1979	01/31/2029
* 2848	CASCADE	IDAHO POWER CO	MON	12800		ID	PAYETTE N FK	02/17/1981	01/31/2031
* 2849	MAIN CANAL HEADWORKS	QUINCY-COLUMBIA BASIN IRRIGAT DIST	MOP		26000	WA	MAIN CANAL	11/16/1981	11/30/2031
* 2850	EMERYVILLE	HAMPSHIRE PAPER COMPANY	MON	1740		NY	OSWEGATCHIE	06/17/1982	05/31/2012
* 2851	NATURAL DAM	JAMES RIVER-GROVETON INC	MON	1020		NY	OSWEGATCHIE	04/13/1982	04/30/2012
* 2852	KEUKA LAKE	NEW YORK ST EL AND G CORP	MON	2000		NY	KEUKA, WANETA & LAMOKA LAKES/MUD CRK	03/14/1983	02/28/2003
* 2853	BROADWATER	MONTANA DEPT OF NATURAL RES & CONS	MOP		10000	MT	MISSOURI RIVER	04/23/1984	03/31/2024
* 2854	OLD RIVER	VIDALIA TOWN OF	MOP		192000	LA	MISSISSIPPI RIVER	01/27/1982	12/31/2031
* 2861	PONTOOK	PONTOOK HYDRO PARTNERS	MON		8575	NH	ANDROSCOGGIN	10/02/1981	09/30/2031
* 2866	LOCKPORT	METRO SAN DIST GR CHICAGO	MOP	13500		IL	CHICAGO SAN & SHIP CANAL	12/04/1981	11/30/2001
* 2874	BARREN RIVER	GLASGOW CITY OF	MOP		6750	KY	BARREN RIVER	09/16/1983	08/31/2033
* 2879	BOLTON FALLS	GREEN MOUNTAIN POWER CORP	MON		8790	VT	WINOOSKI	02/05/1982	01/31/2022
* 2880	CHEROKEE FALLS	BROAD RIVER EL COOP &	MON		3500	SC	BROAD RIVER	08/03/1981	07/31/2021
* 2883	FRIES	RIEGAL TEXTILE CORP	MON	7017		VA	NEW RIVER	06/10/1980	06/01/2020
* 2888	WHISKEY TOWN	REDDING CITY OF	MOP		3240	CA	CLEAR CREEK	03/10/1983	02/28/2023
* 2890	DINKEY CREEK	KINGS RIVER CONSERVATION DIST	MOP		120000	CA	KINGS	03/22/1982	02/29/2032
* 2891	JACKSON BLUFF	TALLAHASSEE CITY OF	MOP		10900	FL	OCHLOCKONEE	07/14/1982	06/30/2022
* 2892	FRIANT POWER PROJECT	FRIANT POWER AUTHORITY	MOP		40000	CA	SAN JOAQUIN RIVER	09/30/1982	08/31/2032
* 2893	SAXTONS RIVER	BSR COMPANY INC	NON		1500	VT	SAXTONS RIVER	03/11/1982	02/29/2032
* 2894	BLACK BROOK	NORTHWESTERN WIS ELEC CO	NON	650		WI	APPLE	01/22/1980	12/31/2020
* 2897	SACCARAPPA	S D WARREN COMPANY	NON	1350		ME	PRESUMPSCOT	10/31/1979	10/01/1999
* 2901	HOLCOMB ROCK	OWENS-ILLINOIS INC	MON	1875		VA	JAMES	01/29/1981	01/31/2001
* 2902	BIG ISLAND	OWENS-ILLINOIS INC	NON	480		VA	JAMES	12/08/1980	01/01/2001
* 2903	NEW HOGAN	CALAVERAS COUNTY WATER DISTRICT	MOP		2500	CA	CALAVERAS RIVER	11/22/1982	10/31/2032
* 2905	ENOSBERG FALLS	VERMONT PUB PWR SUP AUTH	MOP	750	2000	VT	MISSISQUOI RIVER	07/12/1983	04/30/2023
* 2907	DRY CREEK	SAVAGE TERRY & CELIA	NON		12	MT	DRY CREEK	09/26/1979	08/31/2029
* 2911	SWAN LAKE	ALASKA POWER AUTHORITY	MOP	22000		AK	FALLS CREEK	07/17/1980	07/01/2030
* 2916	LOWER MOKELUMNE	EAST BAY MUNICIPAL UTIL DIST	MOP	18750	9900	CA	MOKELUMNE RIVER	03/10/1981	03/31/2031
* 2916	LOWER MOKELUMNE	EAST BAY MUNICIPAL UTIL DIST	MOP		10680	CA		03/10/1981	03/31/2031

* 2922	NOLIN	GLASGOW CITY OF	MOP			KY	KENTUCKY RIVER	10/05/1984	09/30/2034
* 2923	GREEN RIVER	GLASGOW CITY OF	MOP		11000	KY	GREEN RIVER	09/25/1984	08/31/2034
* 2926	RUSSELL D. SMITH	QUINCY-COLUMBIA BASIN IRRIGAT DIST	MOP	6111		WA	POTHOLES EAST CANAL	03/27/1980	02/28/2030
* 2927	AQUAMAC	AQUAMAC CORPORATION	MON	250		MA	MERRIMACK CANAL	10/31/1979	09/30/1999
* 2928	MERRIMACK	MERRIMACK PAPER COMPANY	MON	538		MA	MERRIMACK CANAL	12/27/1979	10/30/1999
* 2928	MERRIMACK	MERRIMACK PAPER COMPANY	MON	550		MA	MERRIMACK CANAL	12/27/1979	10/30/1999
* 2930	NORTH FORK PAYETTE RIVER	IDAHO POWER CO	MON		99000	ID	NORTH FORK PAYETTE RIVER	06/28/1982	05/31/2032
* 2930	NORTH FORK PAYETTE RIVER	IDAHO POWER CO	MON		174000	ID	NORTH FORK PAYETTE RIVER	06/28/1982	05/31/2032
* 2931	GAMBO	S D WARREN COMPANY	MON	1900		ME	PRESUMPSCOT	09/30/1980	09/30/2000
* 2932	MALLISON FALLS	S D WARREN COMPANY	MON	800		ME	PRESUMPSCOT	05/14/1980	05/31/2000
* 2934	UPPER MECHANICVILLE	NEW YORK ST EL AND G CORP	MON	16800		NY	HUDSON	04/23/1981	03/31/2021
* 2935	GRANITEVILLE	GRANITEVILLE COMPANY	MON	1200		GA	AUGUSTA CANAL	10/26/1981	09/30/2001
* 2937	QUINCY CHUTE	QUINCY-COLUMBIA BASIN IRRIGAT DIST	MOP	7800		WA	WEST CANAL OF USBR	08/20/1982	07/31/2032
* 2941	LITTLE FALLS	S D WARREN COMPANY	MON	1000		ME	PRESUMPSCOT	05/28/1980	05/31/2000
* 2942	DUNDEE	S D WARREN COMPANY	MON	2400		ME	PRESUMPSCOT	09/17/1981	09/30/2001
* 2952	GEM STATE	IDAHO FALLS CITY OF	MOP	0	22300	ID	SNAKE RIVER	12/12/1983	11/30/2023
* 2954	GIBRALTER	SANTA BARBARA CITY OF	MOP	1500		CA	SANTA YNEZ R	04/13/1981	04/01/2031
* 2955	NORMANSKILL	WATERVLIET CITY OF	MOP	1250		NY	NORMANS KILL	03/05/1982	02/28/2022
* 2958	MADERA CANAL	MADERA-CHOWCHILLA POWER AUTHORITY	MOP	0	1800	CA	MADERA CANAL	06/08/1982	05/31/2032
* 2958	MADERA CANAL	MADERA-CHOWCHILLA POWER AUTHORITY	MOP	0	675	CA	MADERA CANAL	06/08/1982	05/31/2032
* 2958	MADERA CANAL	MADERA-CHOWCHILLA POWER AUTHORITY	MOP	0	800	CA	MADERA CANAL	06/08/1982	05/31/2032
* 2960	GONZALES	GONZALES CITY OF	MOP	1140		TX	GUADALUPE	08/25/1980	07/31/2020
* 2964	STURGIS	STURGIS CITY OF	MOP	2720		MI	ST JOSEPH RIVER	04/17/1980	03/31/2000
* 2966	CLEMENT DAM	KATSEKAS J & DIMOS Z	MON	2400		NH	WINNIPESAUKEE RIVER	05/17/1982	04/30/2032
* 2972	WOONSOCKET	WOODSOCKET CITY OF	MOP	1100		RI	BLACKSTONE RIVER	11/06/1980	11/30/2020
* 2975	SAND BAR	TRI-DAM POWER AUTHORITY	MOP		15600	CA	MIDDLE FORK STANISLAUS RIVER	09/08/1983	08/31/2033
* 2978	BROWN BRIDGE	TRAVERSE CITY LIGHT & POWER BOARD	MOP	830		MI	BOARDMAN RIVER	09/24/1984	08/31/2014
* 2984	EEL WEIR	S D WARREN COMPANY	MON	1800		ME	PRESUMPSCOT	03/16/1984	03/31/2004
* 2985	WILLOW MILL	MEAD CORP	MON	100		MA	HOUSATONIC	05/01/1981	04/30/2011
* 2987	CORNWELL	CORNWELL HOWARD W & VERNA JEAN	MON		12	CA	MERRIL	05/07/1980	04/30/2030
* 2997	CAMP FAR WEST	SOUTH SUTTER WATER DISTRICT	MOP		6800	CA	BEAR RIVER	07/02/1981	07/01/2021
* 3010	CENTERVILLE	VALLEY INDUSTRIES INC	MON		155	RI	S.BRANCH PAWTUXET	01/25/1983	12/31/2022
* 3011	ARCTIC	ARCTIC DEVELOPMENT CORP	MON	440		RI	PAWTUXET RIVER	01/25/1983	12/21/2022
* 3012	SAYBROOKE	SAYBROOKE MFG CO	MON		235	RI	SOUTH BRANCH PAWTUXET	01/25/1983	12/31/2023
* 3013	NATICK	QUIDNIC RESERVOIR CO	MON		522	RI	PAWTUXET RIVER	07/06/1983	06/30/2023
* 3015	TYEE LAKE	ALASKA POWER AUTHORITY	MOP	29000		AK	TYEE LAKE	08/05/1981	07/31/2031
* 3017	JETTY LAKE	SMITH PETER E & FLETCHER HENRY M	MON	50		AK	JETTY LAKE	07/17/1980	06/30/2030
* 3021	ALLEGHENY L&D 889	ALLEGHENY ELECTRIC CORPORATION INC	MON		13000	PA	ALLEGHENY RIVER	03/27/1985	02/28/2035

* 3021	ALLEGHENY L&D 889	ALLEGHENY ELECTRIC CORPORATION INC	MON		17400	PA	ALLEGHENY RIVER	03/27/1985	02/28/2035
* 3023	TUPPERWARE	DART INDUSTRIES	MON	1724		RI	BLACKSTONE	10/24/1980	09/30/2020
* 3024	HOLLYWOOD	RICHMOND CITY OF	MOP	2075		VA	JAMES RIVER-KANAWHA CANAL	08/06/1982	07/31/2002
* 3025	KELLEYS FALLS	HYDRO RESOURCES CORP	MON		450	NH	PISCATAQUOG RIVER	04/24/1984	03/31/2024
* 3026	BLUE MARSH	DELEWARE RIVER BASIN COMM AND	MOP		1260	PA	TULPEHOCKEN CREEK	04/19/1984	03/31/2034
* 3029	BYRD PARK	RICHMOND CITY OF	MOP	1125		VA	JAMES	08/12/1982	07/31/2002
* 3030	ELK RAPIDS	ANTRIM COUNTY	MOP	188		MI	ELK	02/09/1981	03/01/2001
* 3031	GARLAND CANAL	SHOSHONE IRRIGATION DISTRICT	MOP	2610		WY	GARLAND CANAL	10/09/1981	09/30/2031
* 3033	DAM NO. 2	ARKANSAS ELECTRIC COOP CORP &	MON		120000	AR	ARKANSAS RIVER	08/10/1983	07/31/2033
* 3034	LOCK AND DAM NO.3	ARKANSAS ELECTRIC COOP &	MON		48000	AR	ARKANSAS RIVER	08/10/1983	07/31/2033
* 3036	NORTH MISSISSIPPI	MUNICIPAL ENERGY AGENCY OF MISS	MOP		7700	MS	COLDWATER RIVER	04/15/1983	03/31/2033
* 3036	NORTH MISSISSIPPI	MUNICIPAL ENERGY AGENCY OF MISS	MOP		16000	MS	LITTLE TALLAHATCHIE RIVER	04/15/1983	03/31/2033
* 3036	NORTH MISSISSIPPI	MUNICIPAL ENERGY AGENCY OF MISS	MOP		7500	MS	YACONA RIVER	04/15/1983	03/31/2033
* 3036	NORTH MISSISSIPPI	MUNICIPAL ENERGY AGENCY OF MISS	MOP		13200	MS	YALOBUSHA RIVER	04/15/1983	03/31/2033
* 3037	ELIZABETH WEBBING MILLS	ROOSEVELT HYDRO ELECTRIC COMPANY	MON	700		RI	BLACKSTONE RIVER	07/13/1981	06/30/2021
* 3038	SUCCESS	LOWER TULE RIVER IRR DIST	MOP		1400	CA	TULE RIVER	08/22/1983	07/31/2033
* 3041	HETTINGER	MACKAY BAR CORP	MON	12		ID	SMITH CR	11/14/1980	10/31/2010
* 3043	LOCK & DAM NO. 13	ARKANSAS ELECTRIC COOP CORP &	MON		33200	AR	ARKANSAS RIVER	10/18/1983	09/30/2033
* 3044	LOCK & DAM NO. 9	ARKANSAS ELECTRIC COOP CORP &	MOP		42400	AR	ARKANSAS RIVER	07/20/1983	06/30/2033
* 3052	BLACK RIVER FALLS	BLACK RIVER FALLS CITY OF	MOP	920		WI	BLACK RIVER	08/28/1981	08/30/2001
* 3063	CENTRAL FALLS	GELARDIN BRUNER COTT INC	MON	818		RI	BLACKSTONE RIVER	08/28/1981	07/31/2021
* 3073	CLIFFORD ROSENBALM	ELLIS WAYNE R	MON	8		ID	BEAR CR	10/31/1980	12/31/2004
* 3074	UPRIVER	SPOKANE CITY OF	MOP	14400	9000	WA	SPOKANE	06/04/1981	05/31/2031
* 3083	KAW	KAMO ELECTRIC COOP INC	MON		37000	OK	ARKANSAS RIVER	11/27/1984	10/31/2034
* 3090	VAIL STATION	LYNDONVILLE VILLAGE OF	MOP	350		VT	PASSUMPSIC	01/23/1981	02/01/2001
* 3102	HIGH SHOALS	BRACEWELL GAYNOR L	MON		1000	GA	APALACHEE	08/07/1981	08/30/2021
* 3107	NEWFOUND	NEWFOUND HYDROELEC CO	MON		1487	NH	NEWFOUND RIVER	11/06/1981	10/31/2031
* 3131	BROCKWAYS MILLS	WILLIAMS RIVER ELEC CORP	MON		1115	VT	WILLIAMS RIVER	01/20/1983	12/31/2032
* 3133	ERROL	PSNH & UNION WTR PWR CO	MON		2010	NH	ANDROSCOGGIN RIVER	08/29/1983	07/31/2023
* 3155	CARBONTON DAM	COX LAKE-CARBONTON ASSOCIATES	MON		1000	NC	DEEP RIVER	07/09/1982	06/30/2022
* 3156	WORTHVILLE DAM	JORDAN JOHN M	NON	0	280	NC	DEEP RIVER	10/28/1982	09/30/2022
* 3163	RANDOLPH MILLS NO. 2	JORDAN JOHN M	NON		144	NC	DEEP RIVER	09/28/1984	08/31/2024
* 3174	VALLECITO	PTARMIGAN RESOURCES & ENERGY INC	MON		2350	CO	LOS PINOS RIVER	10/05/1983	09/30/2033
* 3189	ROCK CREEK	KEATING JOSEPH M	MON		3000	CA	ROCK CREEK	04/29/1983	03/31/2033
* 3190	BLACK BUTTE	SANTA CLARA CITY OF	MOP		6800	CA	STONY CREEK	05/05/1983	04/30/2033
* 3193	STONY GORGE	SANTA CLARA CITY OF	MOP	0	3900	CA	STONY CREEK	08/31/1982	07/31/2032

OFFICIAL COMMITTEE FILE

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D.C. 20426

July 16, 1985

JUL 16 '85

Honorable James A. McClure
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

In response to your request that the Commission study and report on S. 1219, the Fair Competition in Hydroelectric Licensing Act of 1985, and S. 1260, the Hydroelectric Relicensing Reform Act of 1985, I am submitting the enclosed staff analyses of these bills. These comments do not necessarily represent the views of the Commission as a whole or any Commissioner.

If I can be of further assistance in this or any other Commission matter, please let me know.

Sincerely,

Raymond J. O'Connor

Raymond J. O'Connor
Chairman

Enclosures

Enclosure 1

Analysis of S. 1219, "Fair Competition in Hydroelectric Licensing Act of 1985"

S. 1219 would amend Sections 7(a) and 15(a) of the Federal Power Act (FPA), 16 U.S.C. §§ 800(a), 808(a), to specifically require that under Section 7(a) preference be given to applications by states and municipalities (hereinafter "municipalities") in relicensing competition regardless of whether the original licensee is competing for the new license. Thus, to the extent that a municipality's plans are deemed equally as well adapted to serve the public interest as those of any other non-municipal competitors, the Commission would be required to issue a new license to that municipal applicant. S. 1219 would, however, eliminate the current statutory right granted to municipal competitors to amend their plans to make them equally as well adapted as those of a non-municipal competitor. A municipality's right to amend a relicense application at any time in the proceeding would thus be governed by the same procedural rules that apply to all competing relicense applications.

S. 1219 would not alter the current statutory basis for compensating an original licensee in the event a new license is issued to a new licensee. Compensation would be based on net investment plus severance damages as set forth in Section 14 of the FPA, 16 U.S.C. § 807(a). The proposed legislation would augment this compensation by revising Section 15(a) of the FPA to require the new licensee to provide the previous licensee up to 25 percent of the relicensed project's output for one fifth of the new license term. Such power would be provided at the new licensee's cost of power and energy from the project. It is not clear what determines the percentage of output to be provided or how the cost of power and energy provided an existing licensee are to be calculated. Such power costs could be calculated on the basis of the cost of acquisition (net investment plus severance damages) of the project by the new licensee plus operation and maintenance costs, administrative costs and annual charges. Inasmuch as S. 1219 retains the net investment-based compensation, power costs should be substantially less than avoided energy costs.

Proposed new Section 15(a) requires that the sale of project output to the previous licensee not adversely affect the status of any bonds, notes or obligations of the new licensee. To the extent that providing relatively inexpensive power to the previous licensee would "adversely affect" such obligations, it is not clear whether the provision for output sales would not apply, or whether the cost of power would have to be increased to a level that would not affect the status of these obligations.

If the new licensee is a municipal utility, this sale to the previous licensee would not be within the Commission's ratemaking authority, since a municipal utility is not a "public utility" as defined under Section 201 of the FPA.

S. 1219 contains a number of provisions that would enhance the ability of any non-licensee to compete for a new license:

(1) Proposed Section 7(d)(3) would require existing licensees to make available to entities planning to file a competing application for new license "all plans, drawings, designs, data, and any other information relating to the construction and operation of the project necessary to enable such applicant to file a competing application . . ." The licensee would be entitled to the reasonable costs of providing such information. Competitors would also be guaranteed access to project works and lands upon reasonable advance notice.

There is currently no provision in the Commission regulations that would require existing licensees, in advance of filing an application for a new license, to share data, designs, studies and other information necessary to file a competing application for a new license. Once an application is filed, it becomes public information and available to competing applicants. Further information supporting the filed application may be obtained through petitioning for discovery under the Commission's general procedural rules. 18 C.F.R. Part 385. The Commission in Pacific Gas and Electric Company, Project No. 173, City of Santa Clara, California, Project No. 2745, 56 FPC 1049 (1976), ordered an existing licensee to disclose historical information regarding the operation of its project to a competing applicant for a new license, but declined to require disclosure of certain studies that were considered the licensee's work product. In denying disclosure, the Commission noted that granting discovery of those studies would in effect compel the existing licensee to underwrite the efforts of its competitor.

(2) Proposed Section 7(d)(4) would require licensees to agree to perform joint studies with other competing applicants willing to share in the costs, provided that (1) such studies would otherwise be duplicative of studies to be performed by the existing licensee, and (2) the relevant government agency that recommends or reviews such studies approves the joint study plan.

* 3195	SAYLES FLAT	KEATING JOSEPH M	MON		2950	CA	SOUTH FORK AMERICAN RIVER	09/26/1983	08/31/2033
* 3203	MAYO DAM	JORDAN JOHN M	MOP	0	500	NC	MAYO RIVER	10/18/1982	09/30/2022
* 3206	NEW MARTINSVILLE	NEW MARTINSVILLE CITY OF	MOP		34000	OH	OHIO RIVER	06/04/1984	05/31/2034
* 3207	CONEMAUGH	SALISBURG BOROUGH OF & SEE REMARKS	MON		14000	PA	CONEMAUGH RIVER	06/16/1982	05/31/2032
* 3211	HINCKLEY	POWER AUTHORITY OF THE STATE OF NY	MOP		9000	NY	WEST CANADA CREEK	08/12/1982	07/31/2002
* 3228	MAHONING	ATLANTIC POWER DEVELOPMENT CORP	MON		5000	PA	MAHONING CREEK	01/26/1984	12/31/2034
* 3240	ROLFE CANAL	BRIAR-HYDRO ASSOCIATES	MON		3360	NH	CONTOOCOOK RIVER	12/05/1984	11/30/2024
* 3251	CORNELL UNIVERSITY	CORNELL UNIVERSITY	NON	1500		NY	FALL CREEK	07/28/1981	06/30/2021
* 3253	CAMPTON HYDRO	MAD RIVER POWER ASSOC	NON		382	NH	MAD RIVER	11/09/1982	10/31/2022
* 3255	LYONSDALE	LYONSDALE ASSOCIATES	MON	3000		NY	MOOSE RIVER	03/22/1983	02/28/2023
* 3267	BALLARD MILL	GREATER MALONE COMMUNITY COUNCIL IN	NON	125	150	NY	SALMON RIVER	04/19/1982	03/31/2022
* 3273	CHITTENDEN FALLS	CHITTENDEN FALLS HYDRO POWER INC	NON		550	NY	KINDERHOOK CREEK	06/29/1981	05/31/2021
* 3286	BEAR CREEK	PUGET SOUND POWER & LIGHT CO	MON		4000	WA	BEAR CREEK	12/12/1983	11/30/2023
* 3292	CLARION	HYDRO CORPORATION OF AMERICA	MON		2450	PA	CLARION RIVER, EAST BRANCH	08/20/1984	07/31/2034
* 3295	SUMMER FALLS	SOUTH COLUMBIA IRRIGATION DISTRICT	MOP	74000		WA	MAIN CANAL	08/14/1981	07/31/2031
* 3307	TIONESTA LAKE	TIONESTA ASSOCIATES	MON		5000	PA	TIONESTA CREEK	01/26/1984	12/31/2033
* 3309	NASH MILL	COHEN ARTHUR	NON		200	NH	ASHUELOT RIVER	12/30/1982	11/30/2022
* 3342	PENACOOK LOWER	NEW HAMPSHIRE HYDRO ASSC	MON	4000		NH	CONTOOCOOK RIVER	11/17/1982	10/31/2022
* 3351	WARM SPRINGS	SONOMA COUNTY WATER AGENCY	MOP		3000	CA	DRY CREEK	12/18/1984	11/30/2034
* 3409	BOYNE RIVER DAM	BOYNE USA INC	NON		250	MI	BOYNE RIVER	02/22/1982	01/31/2022
* 3410	WOODS LAKE	WOODS LAKE RANCH	NON	30	0	CO	LIME CREEK	02/01/1983	01/31/2003
* 3435	MILLWOOD	HOPE CITY OF	MOP		3600	AR	LITTLE RIVER	05/24/1984	04/30/2034
* 3442	MINE FALLS	NASHUA CITY OF	MOP		3032	NH	NASHUA RIVER	08/04/1983	07/31/2023
* 3449	MURRAY LOCK & DAM NO 7	NORTH LITTLE ROCK CITY OF	MOP		36800	AR	ARKANSAS RIVER	08/17/1983	07/31/2033
* 3450	EASTVALE	BEAVER FALLS MUNICIPAL AUTHORITY	NOP		440	PA	BEAVER RIVER	12/15/1983	11/30/2023
* 3451	TOWNSEND	BEAVER FALLS MUNICIPAL AUTHORITY	MOP		3250	PA	BEAVER RIVER	08/17/1984	07/31/2024
* 3452	OAK ORCHARD	NIAGARA MOHAWK POWER CORP	NON	350		NY	OAK ORCHARD CREEK	07/15/1981	07/01/2021
* 3472	WYRE-WYND	SOUTHWIRE COMPANY	MON		2745	CT	QUINEBAUG RIVER	05/19/1982	05/01/2022
* 3475	JOHN W. FLANNAGAN	CLINTWOOD TOWN OF	MOP		7000	VA	POUND RIVER	03/11/1985	02/28/2035
* 3494	ALLEGHENY LOCK & DAM 06	NOAH CORP	MON		7500	PA	ALLEGHENY RIVER	07/19/1984	06/30/2034
* 3509	LITTLE FALLS	LITTLE FALLS HYDROELECTRIC ASSOC	MON		13600	NY	MOHAWK RIVER	09/19/1983	08/31/2023
* 3511	GROVEVILLE	UAN GROVEVILLE HYDRO ASSOCIATES	MON	1655		NY	FISHKILL CREEK	06/04/1982	05/31/2022
* 3512	BRAENDLY HYDRO	GOODMAN DAVID & OLIGER GEORGE R	NON		940	NY	FISHKILL CREEK	01/26/1984	12/31/2024
* 3516	HART LAKE	HART CITY OF	MOP	160	0	MI	PENTWATER RIVER	10/29/1982	09/30/2002
* 3562	BARKERS MILL UPPR	BARKER HYDRO COMPANY	NON		950	ME	LITTLE ANDROSCOGGIN	08/22/1983	07/31/2023
* 3603	RUEDI	ASPEN CITY OF & PITKEN COUNTY	MOP		5200	CO	FRYINGPAN RIVER	09/08/1983	08/31/2033

* 3633	BRIGHTON	ALTERNATIVE ENERGY ASSOCIATES	MON	100	480	MD	PATUXENT RIVER	09/21/1984	08/31/2024
* 3671	LOCK AND DAM NO 5	MITEX INC & CENTRAL CITY BOROUGH	MON		15000	PA	ALLEGHENY RIVER	10/15/1984	09/30/2034
* 3706	MUSSERS DAM	AMERICAN HYDRO POWER CO	MON	340		PA	MIDDLE CREEK	07/30/1982	06/30/2022
* 3755	ECHO WATER POWER	BOUNTIFUL CITY OF	MOP		4500	UT	WEBER RIVER	12/07/1984	11/30/2034
* 3756	EAST CANYON	BOUNTIFUL CITY OF	MOP		2000	UT	EAST CANYON CREEK	08/24/1984	07/31/2034
* 3777	ROLLINSFORD	ROLLINSFORD TOWN OF	MOP	1492		NH	SALMON FALLS ROVER	09/18/1981	08/31/2021
* 3816	SOUTHSIDE CANAL	ENERGENICS SYSTEMS INC	MON		3950	CO	SOUTHSIDE CANAL	05/05/1983	04/30/2033
* 3819	MT ELBERT	ENERGENICS SYSTEMS INC	MON		2800	CO	MT. ELBERT CONDUIT	11/10/1982	10/31/2032
* 3820	SOMERSWORTH	GENERAL ELECTRIC COMPANY	MON	1500		NH	SALMON FALLS RIVER	09/29/1981	08/31/2021
* 3842	E.B.C. 4.6 POWER PLANT	QUINCY-COLUMBIA BASIN IRRIGAT DIST	MOP	2200		WA	ELTOPIA BRANCH CANAL	12/09/1981	12/31/2031
* 3843	P.E.C. 66.0 POWER PLANT	QUINCY-COLUMBIA BASIN IRRIGAT DIST	MOP	2300		WA	POTHOLES EAST CANAL	12/09/1981	12/31/2031
* 3893	SLY PARK	EL DORADO IRRIGATION DISTRICT	MOP		850	CA	SLY PARK CREEK	07/27/1984	06/30/2034
* 3939	RAY ROBERTS DAM	DENION CITY OF	MOP		1000	TX	TRINITY RIVER	03/20/1985	02/28/2035
* 3940	LEWISVILLE DAM	DENION CITY OF	MOP		2000	TX	TRINITY RIVER	03/27/1984	02/28/2034
* 4021	LAKE TAHOMA	SARANAC ENERGY CORPORATION	MON	240	0	NC	BUCK CREEK	07/14/1982	06/30/2022
* 4025	SHINGLE CREEK	KOYLE JOHN H	MON	224	120	ID	N FORK AND S FORK OF SHINGLE CREEK	09/30/1981	08/31/2031
* 4026	AZISCOHOS	ANDROSCOGGIN RESERV CO	MON		5200	ME	MAGALLOWAY RIVER	04/17/1985	03/31/2025
* 4108	ST. CLOUD	ST CLOUD CITY OF	MOP		8860	MN	MISSISSIPPI RIVER	12/05/1984	11/30/2024
* 4117	COLEBROOK	METROP DIST OF HARTFORD	MOP		2500	CT	WEST BRANCH FARMINGTON	03/27/1984	02/28/2034
* 4129	RIO BRAVO	OLCESE WATER DISTRICT	MOP		7120	CA	KERN RIVER	09/20/1983	08/31/2033
* 4202	LOWELL TANNERY	PUMPKIN HILL HYDRO CO	MON		875	ME	PASSADUMKEAG RIVER	10/31/1983	09/30/2023
* 4285	LOGAN RIVER #2	LOGAN CITY OF	MOP		3265	UT	LOGAN RIVER	09/21/1984	08/31/2031
* 4306	MISSISSIPPI LOCK & DAM NO. 2	HIBBING CITY OF	MOP		4000	MN	MISSISSIPPI RIVER	07/11/1983	06/30/2033
* 4316	BLUE VALLEY RANCH	TRANS MOUNTAIN HYDRO CORPORATION	MON		130	CO	BLUE RIVER	07/06/1983	06/30/2023
* 4334	PHILADELPHIA	LONG LAKE ENERGY CORP	MON		3000	NY	INDIAN RIVER	02/17/1983	01/31/2023
* 4354	OWYHEE DAM POWER	OWYHEE PROJ IRR DIST 5	MOP		3500	OR	OWYHEE RIVER	05/09/1984	04/30/2034
* 4357	CLIFTON NO 2	TUSCARORA YARNS INC	MON			SC	PACOLET RIVER	09/28/1984	08/31/2024
* 4362	RIVERDALE	INMAN MILLS	MON		1240	SC	ENOREE RIVER	09/29/1982	08/31/2012
* 4428	WALDEN	WALDEN POWER CORPORATION	MON		2824	NY	WALLKILL RIVER	06/15/1982	05/31/2022
* 4444	BLUE VALLEY RANCH	TRANS MOUNTAIN HYDRO CORP	MON		190	CO	BLUE RIVER	05/02/1984	04/30/2024
* 4451	LOWER GREAT FALLS	SOMERSWORTH HYDROPOWER &	MON	1289		NH	SALMON FALLS RIVER	04/22/1982	04/30/2022
* 4472	SARANAC RIVER	NIAGARA MOHAWK POWER CORP	MON		48500	NY	SARANAC RIVER	07/27/1984	06/30/2024
* 4472	SARANAC RIVER	NIAGARA MOHAWK POWER	MON			NY	SARANAC RIVER	07/27/1984	06/30/2024

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* 4506	BLOOMINGTON	WESTERNPORT CITY OF	MOP		13850	MD	NORTH BRANCH POTOMAC	12/20/1983	11/30/2033
* 4597	PINE VIEW	WEBER-BOX ELDER CONS DIST	MOP		1800	UT	OGDEN RIVER	03/16/1984	02/28/2034
* 4639	CHRISTINE FALLS	LONG LAKE ENERGY CORP	MON		725	NY	SACANDAGA RIVER	10/18/1983	09/30/2023
* 4661	DANNER-FENSTER	DANNER GEORGE & FENSTER JAMES P	MON		12	AK	UNNAMED CREEK	08/28/1981	07/31/2031
* 4678	CRESCENT	POWER AUTHORITY OF THE STATE OF NY	MOP	5600	6400	NY	MOHAWK RIVER	06/26/1984	05/31/2024
* 4679	VISCHER FERRY	POWER AUTHORITY OF THE STATE OF NY	MOP	5600	6000	NY	MOHAWK RIVER	06/26/1984	05/31/2024
* 4718	COCHECO FALLS	COCHECO FALLS ASSOCIATES	MON		700	NH	COCHECO RIVER	12/08/1982	11/30/2023
* 4749	MILL CREEK	WALKER LARRY S	MON		1860	WA	POTHOLES EAST CANAL	10/05/1983	09/30/2033
* 4750	ELTOPIA BRANCH CANAL	ENERGENICS SYSTEMS INC	MON		682	WA	ELTOPIA BRANCH CANAL	09/09/1983	08/31/2033
* 4784	PREJEPSCOT	ANDROSCOGGIN WTR PWR CO	MON	2500	7525	ME	ANDROSCOGGIN RIVER	09/16/1982	08/31/2022
* 4796	GLEN PARK	NIAGARA MOHAWK & GLEN PARK ASSOC	MON	0	15490	NY	BLACK RIVER	12/29/1982	11/30/2032
* 4800	MOON LAKE	BOUNTIFUL CITY OF	MOP		4725	UT	LAKE FORK RIVER	06/10/1983	05/31/2033
* 4856	LONG PARK	UTAH BOARD OF WATER RESOURCES	MOP		7000	UT	SHEEP CREEK	06/21/1984	05/31/2024
* 4881	BARBER DAM	ADA CO BOISE CITY OF & BLOOM A L	MON		4140	ID	BOISE RIVER	12/23/1983	11/30/2023
* 4885	TWIN FALLS	SOUTHFORK RESOURCES INC	MON		20000	WA	SOUTH FORK SNOQUALMIE RIVER	05/06/1985	04/30/2035
* 4914	DE PERE	NICOLET PAPER COMPANY	MON	1122	0	WI	FOX RIVER	12/31/1984	11/30/2004
* 5000	KAYUTA	TAFT LAWRENCE R	MON		490	NY	BLACK RIVER	09/12/1984	08/31/2024
* 5044	SIBLEY MILL	GRANITEVILLE COMPANY	MON	2475		GA	AUGUSTA CANAL - SAVANNAH RIVER	04/15/1983	03/31/2003
* 5058	TEHAMA-COLUSA/GLEN COLUSA INTERTIE	GLEN-COULSA IRRIGATION DIST	MON		2952	CA	TEHAMA-COLUSA/GLEN-COLUSA INTERTIE	04/15/1985	03/31/2035
* 5073	BENTON FALLS	WHITMAN EVERETTE E	MON		3400	ME	SEBASTICOOK RIVER	03/08/1984	02/28/2034
* 5089	FELT	FALL RIVER RURAL ELEC COOP INC	MON		7500	ID	TETON RIVER	09/09/1983	08/31/2023
* 5124	NORTH BRANCH NO 3	WASHINGTON ELECTRIC COOPERATIVE INC	MON	1088		VT	WINOOSKI RIVER	11/23/1982	10/30/2022
* 5227	HORSE CREEK	TIFT ROBERT RAYMOND	MON		1200	CA	HORSE CREEK	02/06/1984	01/31/2034
* 5261	NEWBURY	NEWSBURY HYDRO COMPANY	MON	285		VT	WELLS RIVER	09/08/1983	08/31/2023
* 5283	CARGILL FALLS	HALE MANUFACTURING CO	MON		1360	CT	QUINEBAUG RIVER	08/29/1983	07/31/2023
* 5297	MANVILLE	FORTE BROTHERS INC	MON		1240	RI	BLACKSTONE RIVER	08/29/1983	07/31/2023
* 5312	WESTFIR	J R FERGUSON & ASSOCIATES	MON		3000	OR	N FORK MIDDLE FORK WILLAMETTE RIVER	03/03/1983	02/28/2033
* 5313	DEWEYS MILLS	HYDRO ENERGIES CORP	MON		1840	VT	OTTAUQUECHEE RIVER	01/20/1983	12/31/2032
* 5334	FORD LAKE	JOINT YPSILANTI RECREATION ORGAN	MON	1920		MI	HURON RIVER	10/07/1983	09/30/2003
* 5357	MITCHELL BUTTE	NORTH BOARD OF CNTRL OWYHEE PROJ ID	MOP		1500	OR	MITCHELL BUTTE LATERAL	12/14/1984	11/30/2034
* 5362	LOWER MOUSAM	KENNEBUNK LT & PWR D	MOP	150	0	ME	MOUSAM RIVER	04/16/1982	03/31/2022

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* 5362	LOWER MOUSAM	KENNEBUNK LT & PWR DIST	NOP	300	0	ME	MOUSAM RIVER	04/16/1982	03/31/2022
* 5362	LOWER MOUSAM	KENNEBUNK LT & PWR DIST	NOP	150	0	ME	MOUSAM RIVER	04/16/1982.	03/31/2022
* 5362	LOWER MOUSAM	KENNEBUNK LT & PWR DIST	NOP	0	375	ME	MOUSAM RIVER	04/16/1982	03/31/2022
* 5596	BEDFORD	BEDFORD CITY OF	MOP	1090	4800	VA	JAMES RIVER	05/20/1983	04/30/2025
* 5598	MILTON LEATHER BD	EAST COAST ENGINEERING	NON		600	NH	SALMON FALLS RIVER	12/30/1982	11/30/2022
* 5667	WEARE RESERVOIR	EAST COAST ENGINEERING	NON		114	NH	PISCATAQUOG RIVER	01/20/1983	12/31/2022
* 5668	NORTH TROY	VERMONT PUB PWR SUP AUTH	NOP		600	VT	MISSISQUOI RIVER	12/05/1983	11/30/2023
* 5679	METALS SELLING	METALS SELLING CORP	NON		450	CT	QUINEBAUG RIVER	08/30/1984	07/31/2024
* 5702	BARNET	BARNET HYDRO COMPANY	NON		530	VT	STEVENS RIVER	08/06/1982	07/31/2032
* 5728	SANDY HOLLOW	SANDY HOLLOW HYDRO ASSOCIATES	NON		515	NY	INDIAN RIVER	03/22/1983	02/28/2023
* 5765	MADERA CANAL MILE 24.2 (DRY CREEK)	MADERA-CHOWCHILLA POWER AUTHORITY	NOP		275	CA	MADERA CANAL	09/08/1983	08/31/2033
* 5867	ALICE FALLS	LONG LAKE ENERGY CORP	MON		1960	NY	AUSABLE RIVER	10/05/1983	09/30/2023
* 5891	OPAL SPRINGS	DESCHUTES VALLEY WATER DISTRICT	MOP		4900	OR	CROOKED RIVER	11/02/1982	10/31/2032
* 5906	NORTH CANAL	NORTH CANAL WATERWORKS	MON	2520		MA	MERRIMACK NORTH CANAL	08/11/1982	07/31/2002
* 5927	GOOSE CREEK	GOOSE CREEK HYDRO ASSOC	NON		350	VA	GOOSE CREEK	03/04/1985	02/28/2025
* 5944	MORETOWN NO. 8	WASHINGTON ELEC GEN & TRAN COOP INC	NON		800	VT	MAD RIVER	12/07/1982	11/30/2023
* 5946	LOWELL ATLANTIC	MASSACHUSETTS HYDRO ASSC	NON	500		MA	LAWRENCE CANAL	12/30/1983	11/30/2003
* 5983	LOST CREEK	MORGAN CITY CORPORATION	NOP		680	UT	LOST CREEK	10/07/1983	09/30/2033
* 6058	HAILESBORO NO. 4	HYDRO DEVELOPMENT GROUP INC	NON	1490		NY	OSWEGATCHIE RIVER	01/10/1983	12/31/2002
* 6059	FOWLER NO. 7	HYDRO DEVELOPMENT GROUP INC	NON	900		NY	OSWEGATCHIE RIVER	11/29/1982	10/31/2002
* 6115	PYRITES	HYDRO DEVELOPMENT GROUP INC	MON	1200	6000	NY	GRASS RIVER	09/23/1983	08/31/2023
* 6120	CAMP CREEK	FRONTIER LAND AND POWERR	NON		990	CA	CAMP CREEK	12/29/1982	11/30/2022
* 6220	TOKUL CREEK	WEYERHAEUSER CO	MON		3500	WA	TOKUL CREEK	03/29/1984	02/28/2034
* 6240	WATSON DAM	WEBSTER JOHN M	NON		182	NH	COCHECO RIVER	09/08/1983	08/31/2023
* 6398	HACKETT MILLS	HACKETT MILLS HYDRO ASSC	NON		470	ME	LITTLE ANDROSCOGGIN	09/12/1984	08/31/2024
* 6418	A.J. ALLEN	BUKFORD JUDITH A	NON		17	CO	EAST BRUSH CREEK	08/10/1983	07/31/2003
* 6440	LAKEPORT	LAKEPORT HYDROELEC ASSOC	NON		600	NH	WINNEPESAUKEE RIVER	09/08/1983	08/31/2023
* 6470	WINOOSKI NO. 8	WINOOSKI HYDROELECTRIC CO	NON		550	VT	WINOOSKI RIVER	08/29/1983	07/31/2023
* 6597	MONADNOCK	MONADNOCK PAPER MILLS	MON	750		NH	CONTOOCOOK RIVER	08/27/1984	07/31/2014
* 6597	MONADNOCK	MONADNOCK PAPER MILLS	MON	770		NH	CONTOOCOOK RIVER	08/27/1984	07/31/2014
* 6597	MONADNOCK	MONADNOCK PAPER MILLS	MON	425		NH	CONTOOCOOK RIVER	08/27/1984	07/31/2014
* 6597	MONADNOCK	MONADNOCK PAPER MILLS	MON	0	0	NH	CONTOOCOOK RIVER	08/27/1984	07/31/2014
* 6614	PLEASANT OAK MAIN	EL DORADO IRRIGATION	NOP		250	CA	PLEASANT OAK MAI	07/06/1984	06/30/2034

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* 6687	RESERVOIR NO.3	EL DORADO IRRIGATION DISTRICT	NOP		950	CA	EL DORADO MAIN NO 2	07/12/1983	06/30/2033
* 6689	PENACOOK UPPER	PENACOOK HYDRO ASSOC	MON		2800	NH	CONTOOCOOK RIVER	12/05/1984	11/30/2024
* 6759	APALACHE	AQUENERGY SYSTEMS INC	NON		335	SC	SOUTH FORK TYGER RIVER	08/21/1984	07/31/2024
* 6916	STRONTIA SPRINGS	DENVER CITY & COUNTY OF	NOP		950	CO	SOUTH PLATTE RIVER	01/13/1984	12/31/2024
* 6951	TALLASSEE SHOALS HYDRO	OGLETHORPE POWER CORP	MON		1900	GA	MIDDLE OCONEE RIVER	10/24/1983	09/30/2023
* 7000	NEWTON FALLS	NEWTON FALLS PAPER MILL INC	MON		1540	NY	OSWEGATCHIE RIVER	02/28/1984	01/31/2004
* 7000	NEWTON FALLS	NEWTON FALLS PAPER MILL INC	MON		680	NY	OSWEGATCHIE RIVER	02/28/1984	01/31/2004
* 7153	VICTORY MILLS	SNC HYDRO INC	NON		1237	NY	FISH CREEK	05/15/1984	04/30/2024
* 7161	GALESVILLE	DOUGLAS COUNTY	MON		1800	OR	COW CREEK	06/29/1984	05/31/2034
* 7175	WOODRUFF NARROWS	WYOMING HYDRO INC	MON		2500	WY	BEAR RIVER	09/06/1984	08/31/2024
* 7186	SHELDON SPRINGS	MISSISQUOI ASSOCIATES	MON	4300	17800	VT	MISSISQUOI RIVER	11/02/1984	09/30/2024
* 7188	MURPHY	PSNH & NH WATER RES BRD	MON		2250	NH	CONNECTICUT RIVER	08/10/1984	07/31/2024
* 7189	GREEN LAKE	GREEN LAKE WATER PWR CO	NON		375	ME	REEDS BROOK	04/05/1984	03/31/2024
* 7214	SPRING CREEK	SMITH LANE	MON		7000	WA	SPRING CREEK	09/28/1984	08/31/2034
* 7252	HIGH LINE CANAL	SANTA CLARA CITY OF	NOP		350	CA	HIGH LINE CANAL SOUTH CANAL	07/17/1984	06/30/2034
* 7266	TAYLOR PARK HYDRO	COLORADO HYDRO-POWER CORP	MON		3600	CO	TAYLOR RIVER	05/02/1984	04/30/2034
* 7269	JIM BOYD POWER PROJECT	BOYD JAMES B AND JANET A	NON		1095	OR	UMATILLA RIVER	07/09/1984	06/30/2034
* 7281	LATERAL 6.2	MADERA IRRIGATION DISTRICT	NOP		850	CA	MADERA CANAL	12/28/1983	11/30/2033
* 7337	COWICHE	YAKIMA-TIETON IRRIGATION DISTRICT	NOP		1350	WA	USBR YAKIMA-TIETON CANAL	07/06/1984	06/30/2034
* 7338	ORCHARD AVENUE	YAKIMA-TIETON IRRIGATION DISTRICT	MOP		2785	WA	IRRIGATION SYSTEM	07/06/1984	06/30/2034
* 7373	MARTINSVILLE	BOERI JAY(JOHN L) JR	NON		250	VT	LULLS BROOK	12/28/1984	11/30/2034
* 7410	PETERBOROUGH	AMERICAN HYDRO POWER CO	NON		364	NH	NUBANUSIT BROOK	08/15/1984	07/31/2034
* 7410	PETERBOROUGH	AMERICAN HYDRO POWER CO	NON		246	NH	NUBANUSIT BROOK	08/15/1984	07/31/2034
* 7483	MOUNDS	WILLOW RIVER HYDRO ASSOCIATES	NON		490	WI	WILLOW RIVER	02/28/1985	01/31/2025
* 7484	LITTLE FALLS	WILLOW RIVER HYDRO ASSOCIATES	NON		270	WI	WILLOW RIVER	02/26/1985	01/31/2025
* 7528	CANAAN	PUBLIC SERVICE CO OF N H	NON	1100		VT	CONNECTICUT RIVER	08/24/1984	07/31/2009
* 7563	WEEKS FALLS	SOUTH FORK II INC	MON		3400	WA	SOUTH FORK SNOQUALMIE RIVER	04/25/1985	03/31/2035
* 7725	BARTON VILLAGE	BARTON VILLAGE ELEC DEPT	MUP	1400		VT	CLYDE RIVER	10/11/1984	09/30/2004
* 7748	WATERFORD	POWER AUTHORITY OF THE STATE OF NY	MUP		3000	NY	HUDSON RIVER	03/11/1985	02/28/2025
* 7961	PETTYBORO BROOK	MCHUGH ROBERT	NON		58	NH	PETTYBORO BROOK	12/31/2034	
* 8277	OTIS	OTIS HYDROELECTRIC CO	MON	10350		ME	ANDROSCOGGIN RIVER	09/19/1984	09/30/1999
* 8315	SARTELL DAM	ST REGIS CORP	MON		9500	MN	MISSISSIPPI RIVER	03/13/1985	02/28/2025
* 8428	MONTAGUE WASTEWTR	MONTAGUE TOWN OF	NOP		4	MA		04/15/1985	

It appears that the proposed legislation would vest in the Commission the authority to resolve any dispute whether a separate study would be duplicative and any dispute regarding respective roles and responsibilities in carrying out any joint study. Two questions arise with respect to this provision. First, a licensee may not know, at the time it engages in such studies, who its competitors will be, and therefore joint studies may be unfeasible. Also, if the competitors would have access to such studies at mere duplication costs under proposed Section 7(d)(3), it is not clear what incentive they would have to engage in joint studies at shared cost.

(3) Section 15 of the FPA would be amended to provide that the Commission shall not, in evaluating competing relicense applications, consider whether an applicant has adequate transmission facilities.

This provision would limit the Commission's ability to consider such factors as the effect on ratepayers of additional costs incurred to obtain such transmission and the effect of transmission-related difficulties on the efficient operation of the project. Such a restriction would hamper the Commission's ability to assure that the broad public interest is served.

(4) To complement the above provision, proposed Section 7(g) would require the Commission to order existing licensees to provide the new licensee transmission services over its facilities and to increase transmission capacity of any bulk transmission facility when necessary to permit transmission of the output of the project. Proposed Section 7(f) would require that all new licenses issued under Section 15 be conditioned to require any "electric utility licensee" to provide transmission services and increase bulk power transmission facilities if "necessary or appropriate in order to conserve energy, promote the efficient use of the bulk power supply market, or is otherwise in the public interest." It should be noted that the transmission rate authority of the Commission under Section 205 of the FPA relates only to public utilities, which excludes municipal licensees. Since proposed Section 7(f) refers to "any electric utility licensee," it could arguably expand the Commission's current jurisdiction.

Proposed Sections 7(f) and 7(g) would substantially expand the Commission's current authority to order wheeling. The proposed standards to order wheeling amend the existing standards in

Sections 211 and 212 of the FPA. For example, Section 211(c)(1) provides that the Commission shall not order mandatory transmission "unless the Commission determines that such order would reasonably preserve existing competitive relationships" (emphasis added). Proposed Section 7(f) would alter this finding to merely require a determination that the order would "increase competition in the bulk power supply market" (emphasis added). Section 211(a)(2)(B) currently authorizes the Commission to order wheeling that would, *inter alia*, "significantly promote the efficient use of facilities and resources" (emphasis added). Proposed Section 7(f) would delete the word "significantly" and thereby reduce the threshold showing required. Similarly, current Section 211(a)(1) authorizes wheeling that the Commission finds "is in the public interest" and meets a variety of other standards set forth therein. Proposed Section 7(f) would add "is otherwise in the public interest" as an independent basis for ordering wheeling. Additionally, Section 212 of the FPA provides a number of constraints on the Commission's current authority to order mandatory transmission service that are not incorporated in proposed Sections 7(f) and 7(g).

S. 1219 retains Section 10(a) of the FPA, 16 U.S.C. § 803(a), as the standard for judging the merits of competing applications. However, the bill specifically designates two criteria for the standard. First, clause (A), in part, paraphrases the current Section 10(a) standard and specifically adds to it the ability of "each applicant to achieve efficiency in the production and consumption of electric power . . . ." Although the ability of an applicant to operate a project is clearly a factor under the current Section 10(a) standard, the Commission has not had occasion to address the extent to which "efficiency in production and consumption of electric power" could be considered. A licensee's ability to promote and comply with Federal and state energy policies, including conservation, would be a factor to consider and weigh with other public interest factors. To the extent, however, that this provision would require an exhaustive examination of past or future compliance with regulatory requirements handled at the Federal, state, or local level, it would be inappropriate, would encumber the progress of the proceeding, and could obscure the proper scope of the Federal concerns in relicensing.

Clause (B) would require consideration of adverse impacts on fish, wildlife, natural, cultural and recreational resources, mitigation of any such impacts, and public use and benefit to be derived from such resources. All of these factors are currently considered by the Commission under Section 10(a).

To the extent such specific criteria may conflict or create ambiguities with the broad public interest criteria in Section 10(a), the Commission's relicensing decisions may be embroiled in confusion and litigation. For the most part, these criteria are encompassed under the current Section 10(a) standard. Therefore, the Commission's current scope of comparison of competing applications under Section 10(a) might not be measurably altered. However, if the law is amended to specify only some elements of the public interest that are potentially affected in relicensing, while omitting others, it is unclear what weight should be ascribed to any item in the context of a balanced relicensing decision. For example, do the specified public interest factors take on more importance than other factors usually considered under the Section 10(a) standard? Under the current Section 10(a) mandate, the Commission has the discretion to attribute appropriate weight to any one public interest factor in light of the circumstances of the particular case before it.

S. 1219 would revise current procedures for considering the potential anti-competitive effects of applications for new license. Pursuant to Section 10(h) of the FPA, 16 U.S.C. § 803(h), in all licensing proceedings the Commission must prohibit arrangements to restrain trade, fix prices or otherwise violate Federal antitrust laws. Prior to issuing a license, the Commission conducts a review of antitrust considerations that relate to the operation of the hydroelectric facility, and imposes conditions where needed to avoid antitrust violations. The proposed new Section 15(c) of the Federal Power Act does not appear to alter this obligation or the scope of the Commission's review. However, the language of the provision, "that the activities under such license would tend to create or maintain a situation inconsistent with the antitrust laws" (emphasis added), raises questions whether a lesser standard is intended than that provided in Section 10(h) of the Federal Power Act. It would also alter the procedures on relicensing by requiring that all applications for new licenses be submitted to the Attorney General for advice regarding potential antitrust implications. The Commission would then be required to consider such advice in issuing and conditioning a new license. This procedure appears unnecessary and duplicative since such a review is currently conducted by the Commission as required under Sections 10(h) and 10(a).

S. 1219 would add new Section 15(c) to require that the Commission issue any new license no later than 12 months prior to the expiration date of the existing license. This new subsection would conflict with the Commission's authority under Section 15(a) to issue annual licenses upon the expiration of an original license. This requirement would also seriously jeopardize the Commission's ability to conduct proceedings appropriate to the circumstances of each specific project.

On a matter not related to the relicensing of hydropower projects, S. 1219 would repeal Section 405(d) of the Public Utility Regulatory Policies Act (PURPA) and thus limit exemptions from licensing to the narrow category of projects that qualify as conduit hydroelectric facilities subject to exemption under Section 213 of PURPA. 16 U.S.C. § 823(a). It appears that this repeal would have no effect on exemptions that are final for purposes of administrative action. However, without the inclusion of a savings clause or without express reserved authority it is unclear to what extent, if any, the Commission would retain authority over issued exemptions. Without such authority, the Commission would be unable to enforce the standard terms and conditions set forth in 18 C.F.R. § 4.106 or to amend exemptions to accommodate future changes in circumstances.

Another amendment to PURPA proposed by S. 1219 provides that the provisions of Section 210 that grant special status to cogenerators and small power producers would not apply to projects that utilize new dams or diversions. Only qualified dams on which construction had begun prior to passage of the bill would be entitled to "qualifying status."

Enclosure 2

Analysis of S. 1260, "Hydroelectric Relicensing Reform Act of 1985"

S. 1260 proposes to amend Sections 7, 14 and 15 of the Federal Power Act (FPA) to provide for municipal preference on relicensing when the competing plans are deemed equally well adapted. When municipal preference cannot operate, *i.e.*, if all or none of the competitors are states or municipalities, the existing licensee would be preferred in the event of a tie. In all other situations, the applicant with the plans deemed best adapted to serve the public interest would be granted the license.

S. 1260 would eliminate the Section 10(a) comprehensive development standard as the basis for judging relicense applications. Instead, S. 1260 creates a separate public interest standard in proposed Section 15(c)(3) that requires the Commission to consider: (a) the economic impact on the existing licensee's customers; (b) any impairment from loss of the project that might result in the existing licensee's ability to meet its load requirements; (c) fish and wildlife impacts; and (d) energy efficiency programs of the competitors. This listing of specific criteria to be considered in an evaluation of the suitability of an applicant's plans under the public interest standard raises interpretive questions for the Commission. The current standard used in licensing and relicensing determinations is a broad public interest standard that encompasses each of the criteria listed in the bill in addition to many others. To the extent the public interest standard adopted by S. 1260 requires consideration of all factors in the public interest, as does the current standard, a question is created as to the weight that should be ascribed to any item in the context of a balanced relicensing decision. It is unclear whether the specific criteria listed are more important than other public interest factors usually considered.

In addition to the above-listed items, S. 1260 directs that the Commission consider how the competing plans are adapted to any *state*-developed comprehensive plan (or in the Northwest, a Pacific Northwest Electric Power and Conservation Planning Council-developed plan) or, if there is no plan, the recommendations of state and Federal agencies and Indian tribes exercising administration over resources and public purposes at the project. The Commission's independent comprehensive development responsibilities under Section 10(a) of the FPA are thus eliminated on relicensing.

The broad mandate of Section 10(a) requires the Commission to consider all issues relevant to the public interest, including state-wide or regional concerns. Under this standard, regional and state comprehensive plans may be considered by the Commission in making its licensing decision. Such plans are evaluated and weighed in conjunction with other factors affecting the public interest to ensure that the Commission reaches a balanced independent decision with respect to the public interest. Therefore, substitution of state or regional comprehensive plans for the Commission's current Section 10(a) comprehensive development authority would narrow the current scope of evaluation at relicensing.

In those instances where a state-developed comprehensive plan does not exist, S. 1260 does not address how conflicts among the recommendations of state and Federal agencies and Indian tribes are to be resolved. Currently under Section 10(a), the Commission serves as the final arbiter of what constitutes comprehensive development except to the extent that a Federal agency may exercise its independent authority with respect to Federal reservations under Section 4(e) of the FPA.

Procedurally, S. 1260 would regulate the amendment of applications to ensure all competitors equal opportunities to upgrade their applications. This would eliminate the opportunity municipalities currently have under Section 7(a) to amend their relicensing applications to equal their competitors' plans. Under S. 1260 existing licensees must give notice three years in advance of expiration of the license of their intent to file applications and are given six months thereafter to file. Competitors must file within six months thereafter. All competitors then have a right (no later than one year prior to license expiration) to amend their proposals to improve upon the applications previously filed.

In the event a new licensee is selected to take over a licensed project, S. 1260 retains the statutory net investment basis for compensating an original licensee. Proposed Section 15(d)(4) would, however, require the new licensee also to pay 50 percent of the additional cost incurred by the original licensee to obtain alternative power for the term of the license. Any such payments must be passed directly to the customers of the existing licensee.

Proposed Section 15(c)(2) directs that new licenses shall be issued for a period not to exceed 30 years, unless the Commission determines a longer license term is necessary to best serve the public interest. Although S. 1260 does not indicate a maximum license term on relicensing, the 50-year maximum imposed by Section 6 of the FPA on all licenses issued under Part I would continue to govern new licenses issued under Section 15 as amended by S. 1260.

The provisions of S. 1260 would not apply to any application for new license pending before the Commission as of the date of enactment of the Act for a license for a project for which an existing license expires prior to January 1, 1989. A determination of the projects or applicants to which the bill, if enacted, would apply cannot be made with certainty. During the period before enactment of the bill, licensing decisions may be made for projects on which applications are currently pending; and new applications may be filed for licenses that are pending, but not yet decided when the bill is enacted, or subsequent to enactment for licenses expiring prior to 1989. The attached lists, however, itemize projects for which license terms expire prior to 1989 and projects for which competing applications have been filed.

Hydroelectric Relicensing Proceedings Involving Competing Applications As of May 1985

Project Name and Number

a. owner (including whether owner is a "state" or "municipality" or other
b. rated capacity
c. location
d. expiration date of current license
e. date of relicensing, if applicable
f. competing applicant name(s) and designated FERC project number(s).

(Note: When a license expires, the project continues to operate under automatically-issued annual licenses. See Section 15(a), 16 U.S.C. § 808(a)).

1. Mokelumne Project No. 137

a. Pacific Gas and Electric Company (private)
b. 192,750 KW
c. North Fork Mokelumne River, CA
d. 11/23/75
e. has not yet been relicensed
f. The City of Santa Clara, CA (municipal) filed a competing application designated as FERC Project No. 2745.

2. Olmsted Project No. 596

a. Utah Power and Light Company (private)
b. 10,300 KW
c. Provo River, Utah
d. 10/20/75
e. has not yet been relicensed.
f. The City of Bountiful, Utah (municipal) and Utah Municipal Power Company (municipal) filed competing applications designated as FERC Project Nos. 4040 and 4029, respectively.

LICENSES EXPIRING PRIOR TO 1989

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* LIC-EXP-DT   PROJ-NAME                   ST   DEV-STREAM-NAME             DEV-CAP-INST   DEV-CAP-PROP    DEV-NO   PROJ-NO
***
* 10/30/1970   WEBER                       UT   WEBER                               3465                 174401      1744
* 12/13/1973   WELLS RURAL                 NV   TROUT CR                               0                  84801       848
* 10/02/1974   CUSHMAN NO 1 & NO 2         WA   SKOKOMISH N FK                     81000                  46001       460
* 10/12/1974   CUSHMAN NO 1 & NO 2         WA   SKOKOMISH N FK                     43200                  46002       460
* 06/24/1974   BEAR VALLEY & LAKE WOHLFO   CA   ESCONDIDO CR                        1500                  17601       176
               RD
* 06/24/1974   BEAR VALLEY & LAKE WOHLFO   CA   ESCONDIDO CR                         520                  17602       176
               RD
* 06/24/1974   BEAR VALLEY & LAKE WOHLFO   CA   ESCONDIDO CR                                              17603       176
               RD
* 06/26/1974   KAWEAH                      CA   KAWEAH                              2250                  29803       298
* 06/26/1974   KAWEAH                      CA   KAWEAH                              1800                  29801       298
* 06/26/1974   KAWEAH                      CA   KAWEAH                       [illegible]                  29802       298
* 10/23/1975   OLMSTED                     UT   PROVO RIVER                  [illegible]                  59601       596
* 11/23/1975   MOKELUMNE                   CA   MOKELUMNE N FK                     19700                  13705       137
* 11/23/1975   MOKELUMNE                   CA   MOKELUMNE N FK                       375                  13704       137
* 11/23/1975   MOKELUMNE                   CA   MOKELUMNE N FK                     51000                  13703       137
* 11/23/1975   MOKELUMNE                   CA   MOKELUMNE N FK                     13600                  13702       137
* 11/23/1975   MOKELUMNE                   CA   MOKELUMNE N FK                     69110                  13701       137
* 06/23/1976   GLINES CANYON               WA   ELWHA                              12000                  58801       588
* 06/18/1976   LOCK NO 7                   KY   KENTUCKY                     [illegible]                  53901       539
* 11/22/1976   WALTERS                     NC   PIGEON                       [illegible]                  43201       432
* 07/19/1977   SHAWANO                     WI   WOLF                                  64                  71501       715
* 10/07/1977   SAN JUAN                    AK   SAN JUAN LAKE                        170                 225101      2251
* 10/27/1977   SKAGIT RIVER                WA   SKAGIT                       [illegible]                  55301       553
* 10/27/1977   SKAGIT RIVER                WA   SKAGIT                       [illegible]                  55302       553
* 10/27/1977   SKAGIT RIVER                WA   SKAGIT                       [illegible]                  55303       553
* 10/26/1978   RIO BLANCO                  PR   MICACO                       [illegible]                  66501       665
* 05/22/1980   KERR                        MT   FLATHEAD                     [illegible]                    501         5
* 06/30/1980   UINTA                       UT   UINTA                               1200                  19001       190
* 12/25/1980   PHOENIX                     CA   STANISLAUS S FK                     1600                 196101      1961
* 09/20/1982   CRESTA & ROCK CREEK         CA   FEATHER N FK                 [illegible]                 196202      1962
* 09/20/1982   CRESTA & ROCK CREEK         CA   FEATHER N FK                 [illegible]                 196201      1962
* 08/23/1983   LAKE HILL                   UT   COTTONWOOD CR                [illegible]                 121202      1212
* 08/23/1983   LAKE HILL                   UT   MISC. MOUNTAIN SPRINGS                                   121201      1212
* 12/06/1983   RADFORD                     VA   LITTLE CR                    [illegible]                 123501      1235
* 05/30/1984   AZUSA                       CA   SAN GABRIEL                  [illegible]                 125501      1255
* 06/10/1984   TWIN FALLS                  ID   SNAKE                               8438                   1801        18
* 12/10/1985   BUZZARD ROOST               SC   SALUDA                             15000                 126701      1267
* 03/31/1985   KINGS RIVER                 CA   KINGS N FK                        150000                 198802      1988
* 12/31/1985   KINGS RIVER                 CA   KINGS N FK                         75000                 198801      1988
* 12/18/1986   WALLOWA FALLS               OR   WALLOWA E FK                        1100                  30801       308
* 11/30/1986   POOLE                       CA   LEEVINING CR                       10000                 138801      1388
* 11/30/1986   RUSH CREEK                  CA   RUSH CR                             8400                 138901      1389
* 11/30/1986   LUNDY                       CA   MILL CR                             3000                 139001      1390
* 11/30/1986   BISHOP CREEK                CA   BISHOP CR                          21875                 139401      1394
* 11/30/1986   BISHOP CREEK                CA   BISHOP CR                              0                 139402      1394
* 11/30/1986   BISHOP CREEK                CA   BISHOP CR                              0                 139404      1394
* 11/30/1986   BISHOP CREEK                CA   BISHOP CR                              0                 139403      1394
* 12/31/1986   TOMAHAWK                    WI   WISCONSIN                           2600                 194001      1940
* 06/26/1987   SUTHERLAND                  NE   CANAL FROM N & S PLATTE            26100                 183501      1835
* 07/29/1987   CENTRAL NEBRASKA            NE   CANAL FROM PLATTE                  19000                 141701      1417
* 07/29/1987   CENTRAL NEBRASKA            NE   CANAL FROM PLATTE                  18000                 141702      1417
* 07/29/1987   CENTRAL NEBRASKA            NE   NORTH PLATTE                       50000                 141704      1417
* 07/29/1987   CENTRAL NEBRASKA            NE   PLATTE&CANAL FROM PLATTE           19000                 141703      1417
* 12/31/1987   ASHTON & ST ANTHONY         ID   HENRYS FORK OF SNAKE RI              400                 238102      2381
* 12/31/1987   WILLIAMS                    ME   KENNEBEC                           13000                 233501      2335
* 12/31/1987  WEST BUXTON                 ME  SACO
* 12/31/1987  MILLVILLE                   WV  SHENANDOAH                     2625           255101   2551
* 12/31/1987  CATARACT                    ME  SACO                           2440           234301   2343
* 12/31/1987  ASHTON & ST ANTHONY         ID  HENRYS FORK OF SNAKE RI        6650           292801   2928
* 12/31/1987  MATTACEUNK                  ME  PENOBSCOT                      5000           258101   2581
* 12/31/1987  VEAZIE                      ME  PENOBSCOT                     19200           252001   2520
* 12/31/1987  PIEDMONT                    SC  SALUDA                         8400           240301   2403
* 12/31/1987  EASTMAN FALLS               NH  PEMIGEWASSET                   1700           242801   2428
* 12/31/1987  WALSHAM                     WI  RED                            4620           245701   2457
* 12/31/1987  HAWKS NEST & GLEN FERRIS    WV  KANAWHA                         275           244401   2444
* 12/31/1987  HAWKS NEST & GLEN FERRIS    WV  NEW                            5450           251201   2512
* 12/31/1987  BEAVER RIVER                NY  BEAVER                       102000           251202   2512
* 12/31/1987  ELLSWORTH-GRAHAM            ME  UNION                          1500           259101   2591
* 12/31/1987  ELLSWORTH-GRAHAM            ME  UNION                                         272702   2727
* 12/31/1987  KANSAS RIVER                KS  KANSAS                         8900           272701   2727
* 12/31/1987  LAMOILLE RIVER              VT  LAMOILLE                       1850           266401   2664
* 12/31/1987  WEST BUXTON                 ME  SACO RIVER                     2800           220504   2205
* 12/31/1987  GRANDFATHER FALLS           WI  WISCONSIN                      4700           253102   2531
* 12/31/1987  LAMOILLE RIVER              VT  LAMOILLE                      17240           196601   1966
* 12/31/1987  LAMOILLE RIVER              VT  LAMOILLE                       5600           220501   2205
* 12/31/1987  LAMOILLE RIVER              VT  LAMOILLE                       6700           220502   2205
* 12/31/1988  HOLYOKE NO.                 MA  CONNECTICUT CANAL              3200           220503   2205
* 09/28/1988  MORRIS SHEPPARD             TX  BRAZOS                          800           238701   2387
* 08/30/1988  FLINT CREEK                 MT  FLINT CR                      22509           149001   1490
* 10/31/1988  SALMON CREEK & ANNEX CREE   AK  ANNEX CR                       1100           147301   1473
              K                                                              3900           233702   2337
* 02/21/1988  SALMON CREEK & ANNEX CREE   AK  SALMON CR UPPER
              K                                                              9500    2000   233701   2337
* 10/28/1988  DRY SPRUCE                  AK  DRY SPRUCE BAY
* 10/31/1988  MENASHA                     WI  FOX RIVER                        75           143201   1432
* 10/31/1988  BADGER-RAPIDE CROCHE        WI  FOX                             250           239201   2392
* 10/31/1988  BADGER-RAPIDE CROCHE        WI  FOX                            2420           267701   2677
* 10/31/1988  BADGER-RAPIDE CROCHE        WI  FOX                            3420           267702   2677
* 12/31/1988  VICTORIA                    MI  ONTONAGON                      2000           267701   2677
* 12/31/1988  VICTORIA                    MI  W. BRANCH ONTONAGON                           186401   1864
* 12/31/1988  VICTORIA                    MI  W. BRANCH ONTONAGON           12000           186402   1864
* 12/31/1988  PENSACOLA                   OK  GRAND NEOSHO                                  186403   1864
* 12/31/1988  LYONS FALLS                 NY  BLACK                         88803           149401   1494
* 12/31/1988  LYONS FALLS                 NY  BLACK                          2100           254802   2548
* 12/31/1988  VICTORIA                    MI  S. BRANCH ONTONAGON            1150           254801   2548
* 12/31/1988  PROSPECT NO 3               OR  ROGUE S FK                                    186404   1864
* 12/31/1988  LYONS FALLS                 NY  BLACK                          7250           233701   2337
                                                                             5790           254803   2548
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3. Rock Creek-Cresta Project No. 1962
    a. Pacific Gas and Electric Company (private)
    b. 180,900 KW
    c. North Fork Feather River, CA
    d. 9/30/82
    e. has not yet been relicensed
    f. Sacramento Municipal Utility District, Northern California Power Agency and the Cities of Anaheim, Azusa, Banning, Colton and Riverside, CA (municipal) filed a competing application designated as FERC Project No. 3223.

4. Weber Project No. 1744
    a. Utah Power and Light Company (private)
    b. 3,465 KW
    c. Weber River, Utah
    d. 6/30/70
    e. has not yet been relicensed
    f. The City of Bountiful, Utah (municipal) filed a competing application designated as FERC Project No. 2747.

5. Phoenix Project No. 1061
    a. Pacific Gas and Electric Company (private)
    b. 1,800 KW
    c. South Fork Stanislaus River, CA
    d. 12/25/80
    e. has not yet been relicensed
    f. The Tuolumne County Water District (municipal) filed a competing application designated as FERC Project No. 4309.

6. Shawano Project No. 710
    a. Wisconsin Power and Light Company (private)
    b. 640 KW
    c. Wolf River, WI
    d. 7/19/77
    e. has not yet been relicensed
    f. The City of Shawano (municipal) filed a competing application designated as FERC Project No. 2865.

7. Rush Creek Project No. 1389

   a. Southern California Edison Company (private)
   b. 8,400 KW
   c. Rush Creek, CA
   d. 11/30/86
   e. has not yet been relicensed
   f. June Lake Public Utility District (municipal) filed a competing application designated as FERC Project No. 6930.

8. Poole Project No. 1388

   a. Southern California Edison Company (private)
   b. 10,000 KW
   c. Lee Vining Creek, CA
   d. 11/30/86
   e. has not yet been relicensed
   f. City of Vernon, CA (municipal) filed a competing application designated as FERC Project No. 7263.

9. Walters Project No. 432

   a. Carolina Power and Light Company (private)
   b. 108,000 KW
   c. Pigeon River, NC
   d. 11/22/76
   e. has not yet been relicensed
   f. North Carolina Electric Membership Corporation (private) filed a competing application designated as FERC Project No. 2748.

10. Kerr Project No. 5

    a. The Montana Power Company (private)
    b. 168,000 KW
    c. Flathead River, Montana
    d. 5/22/80
    e. has not yet been relicensed
    f. The Confederated Salish and Kootenai Tribes of the Flathead Reservation (private) filed a competing application designated as FERC Project No. 2776.

11. Grandfather Falls Project No. 1966

    a. Wisconsin Public Service Company (private)
    b. 17,240 kW
    c. Wisconsin River, WI
    d. 12/31/87
    e. has not yet been relicensed
    f. The Wisconsin Public Power Inc. System (municipal) filed a competing application designated as FERC Project No. 8243.

12. Azusa Project No. 1250

    a. City of Pasadena, California (Public)
    b. 3,000 kW
    c. San Gabriel River, CA
    d. 12/31/84
    e. has not yet been relicensed
    f. The San Gabriel Hydroelectric Partnership (private) filed a competing application for exemption designated as FERC Project No. 8764.

13. Hudson Falls Project No. 5276 (Formerly Project No. 2482)

    a. Niagara Mohawk Power Corporation (Private)
    b. 7,050 kW
    c. Hudson River, NY
    d. 5/18/84
    e. has not yet been relicensed
    f. The Long Lake Energy Corporation (private) filed a competing application designated as FERC Project No. 4128.

14. South Glen Falls Project No. 5461 (Formerly Project No. 2482)

    a. Niagara Mohawk Power Corporation (Private)
    b. 12,000 kW
    c. Hudson River, NY
    d. 5/18/84
    e. has not yet been relicensed
    f. The Long Lake Energy Corporation (private) filed a competing application designated as FERC Project No. 4331.

15. Mechanicville Project No. 6032 (Formerly Project No. 2500)

    a. Niagara Mohawk Power Corporation (Private)
    b. 12,000 kW
    c. Hudson River, NY
    d. 5/18/84
    e. has not yet been relicensed
    f. The Long Lake Energy Corporation (private) and the New York State Research and Development Authority (public) filed competing applications designated as Project Nos. 4687 and 5799, respectively.

16. Oswego River Project No. 5984

    a. Niagara Mohawk/City of Oswego
    b. 18,000 KW
    c. Oswego River, NY
    d. 5/18/84
    e. has not yet been relicensed
    f. Carlson Leto, Inc. (private), designated as FERC Project No. 6570.

U.S. Department of Justice

Office of Legislative and Intergovernmental Affairs

Office of the Assistant Attorney General

Washington, D.C. 20530

September 12, 1985

Honorable James A. McClure
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

This letter responds to your request for the views of the Department of Justice ('Department') on S. 1219, the 'Fair Competition in Hydroelectric Relicensing Act of 1985,' which would amend portions of the Federal Power Act, 16 U.S.C. §§ 791-823, concerned with hydroelectric power. The Department of Justice recommends against enactment of this legislation.

S. 1219 would amend the Federal Power Act in several ways with respect to the licensing of hydroelectric projects. Section 7 of the Federal Power Act, 16 U.S.C. § 800, currently provides that when issuing new licenses for hydroelectric projects, the Federal Energy Regulatory Commission ('FERC'), shall give preference to applications by states and municipalities, so long as the project proposed by the state or municipality is 'equal' to or can, within a reasonable time, be made 'equal' to that proposed by any other applicant. Section 2(a) of the bill would eliminate the right afforded states and municipalities to amend their applications to make them 'equal.'

Section 15 of the Federal Power Act, 16 U.S.C. § 808, provides for relicensing of hydroelectric facilities when the original license expires. It is silent on the question of whether the municipal and state preference applies to an application for an existing license held by a non-preference licensee. Section 2(b) of the bill would require in relicensing that FERC give a preference to the application of a state or municipality if FERC finds that such proposal is 'equally well adapted as the proposal of any other applicant.'

Section 2(b) also sets forth criteria to be considered by FERC in deciding among competing applications for an existing project. These criteria would require FERC to consider, among other things, the "need to maintain and enhance diversity within the electric utility industry"; the "proposed utilization [of the project] by each applicant to achieve efficiency in the production and consumption of electric power"; the plans of each applicant to utilize the waterway for commerce and for "other beneficial public uses, including recreation, navigation, flood control, water supply, and irrigation"; and, the plans of each applicant to "avoid or mitigate adverse impacts on fish, wildlife, natural, cultural, and recreational resources."

Section 2(b) would prohibit FERC from denying a license to a competing applicant because that applicant has not previously operated a hydroelectric project, and it would require the existing applicant to make project data available to a new applicant and to engage in joint studies with such new applicant upon the payment of reasonable costs by the new applicant.

Section 2(b) of the bill also would require FERC to include in any license issued for an existing project a requirement that the licensee provide transmission services over its transmission facilities to other utilities at just and reasonable costs and to increase the capacity of those facilities "if such transmission services or such increase in transmission capacity is necessary or appropriate in order to conserve energy, promote the efficient use of facilities and resources, increase competition in the bulk power supply market, or is otherwise in the public interest." Further, this section would require FERC to order an existing licensee whose license has not been renewed to transmit power from the project to the new licensee.

Section 3 of the bill would require a new licensee to make available to an existing licensee up to an average of 25 percent of the output of the project for the initial one-fifth of the license term at the new licensee's cost of power and energy from the project, provided that doing so will not adversely affect the status of the new licensee's financing.

Section 5 would create a relicensing antitrust provision modeled on that contained in the Atomic Energy Act Amendments of 1970. Under this provision, the Attorney General would be required to advise FERC whether "the activities under the license would tend to create or maintain a situation inconsistent with the antitrust laws" and include an explanatory statement as to the reasons for his advice. FERC would be required to give "due consideration" to the advice of the Attorney General and to refuse to issue, or to include conditions in, a license where it finds that the activities under the license would "tend to create or maintain a situation inconsistent with the antitrust laws."

The Department opposes enactment of this bill. In particular, the Department questions the benefits of a competitive licensing process that requires FERC to consider and make findings about certain factors regardless of whether those factors are the most significant in making a decision regarding a particular project. Section 10(a) of the Federal Power Act now provides broad criteria for FERC to use in evaluating competing proposals. Under that section FERC can consider such things as the development of water resources to produce and distribute electric power as efficiently as possible, the development of waterways for the benefit of interstate or foreign commerce, and other factors listed in the bill, as well as other factors that may be important to the particular project under consideration. To require that certain factors always be considered in making licensing determinations on projects would be a misuse of resources that could result in the most important factors in a particular project being overlooked.

The Department thus recommends that any hydroelectric relicensing bill should include as the most important criterion the objective of developing the water resources so as to produce and distribute electric power as efficiently as possible. Setting the priority in this manner would better enable FERC to compare meaningfully, and hence to choose among competing applications. Of course, other important criteria would also be considered by FERC and weighted as appropriate to particular proposed projects. In addition, FERC should be required to consider the effect of the loss of a license by an existing licensee on the customers of that licensee.

The Department also opposes the bill's preference for state and municipal entities. As a matter of principle, the Department opposes any preference. As a practical matter, this preference, when coupled with the large number of undifferentiated criteria, is particularly objectionable. Given the number and nature of the licensing criteria, it seems quite likely that FERC often may be unable to find one application preferable to another and will therefore invoke the statutory preference to reach a result. The likelihood that the preference will be invoked may discourage existing licensees from pursuing reasonable proposals for continued operation of their projects because licensees may reasonably fear that FERC will view the bill's preference as a mandate and therefore will generally find state or municipal proposals to be "equal." The elimination of the opportunity for state and municipal entities to amend their applications in section 2(a) of the bill mitigates this problem, but the Department believes that the state and municipal preference is likely to remain a significant obstacle to sound decision-making.

The Department opposes requiring a licensee to provide transmission services to other electric utilities over its transmission facilities. This legislation is an inappropriate vehicle for considering modification to current statutes pertaining to transmission services generally, especially considering that it affects only part of the electric power industry, the part that produces power from hydroelectric projects. FERC has recently published a Notice of Inquiry concerning transmission access and pricing for the entire industry and is conducting a review and evaluation of this subject. Such a broad review is a better means of forming judgments on the adequacy and efficiency of the current law and regulatory practice pertaining to transmission services than this particular legislation.

However, if this bill were enacted, it should require an existing licensee to make its transmission from the project available to the new licensee. In the absence of such a provision, it is pointless to contemplate entry of new applicants for licenses because an existing licensee could use its control of the transmission lines from the project to create a bottleneck, making it prohibitively expensive for any new licensee to take over a hydroelectric project.

Finally, the Department opposes the antitrust review provision contained in S. 1219. The Department believes that it would require lengthy and burdensome proceedings, the procompetitive benefits of which are likely substantially to be outweighed by the delays it would impose on the relicensing process. The Department would, however, recommend that FERC be required to consider, among other public interest criteria, the effect on competition of the decision to award the license to a particular applicant. The statute should also expressly provide that the Attorney General may participate as of right in any licensing hearing for the purpose of raising and arguing competition-related issues.

For the reasons stated above, the Department opposes enactment of this legislation.

The Office of Management and Budget has advised the Department that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

Phillip D. Brady
Acting Assistant Attorney General

ADDITIONAL VIEWS OF SENATOR EVANS

I remain convinced that, upon expiration of a license, the existing licensee has no more claim of right than any other to the continued use of a public resource. Yet I realize that the customers of existing licensees have grown to depend on cheap hydroelectric resources and should be protected from disruptions caused by transfer of licenses. Therefore, I reluctantly support this legislation. I believe, however, that certain aspects of the Committee's amendment merit further discussion.

Section 3 of the Committee amendment further clarifies FERC's licensing responsibilities under section 10(a) of the Federal Power Act of 1920. Existing law arguably requires FERC to consider the effect of the proposed project on fish and wildlife, flood control and water supply needs. In practice, however, FERC hasn't always given consideration to factors other than power development. By making explicit other factors, the Committee amendment ensures that, in all cases, FERC must consider the effects of a proposed project on all other uses of a water resources. The Committee amendment further clarifies the process whereby FERC will incorporate the recommendations made by appropriate agencies or pursuant to state or regional plans as terms and conditions of a license. If FERC decides to reject or modify those recommendations, it is required to explain its decision for the record.

As the Committee Report suggests, section 4 of the Committee amendment requires the FERC during proceedings on a new license application to consider the fact that a project's structure and facilities already exist. This provision should in no way be construed as relieving licensees of responsibilities to mitigate damages to fish and wildlife caused by original development and continued operation of the project. Prior to issuance of a new license, FERC must study the effect of a project on nonpower resources and consider possible mitigative measures. See *Yakima Indian Nation* v. *FERC*, 734 F.2d 1347, 1353 (9th Cir. 1984). Furthermore, the Fish and Wildlife Coordination Act requires FERC to give "equal consideration" to wildlife conservation and coordinate it with other features of water resource development programs. And, in the case of the Columbia River system, the Pacific Northwest Electric Power Planning and Conservation Act requires FERC to provide "equitable treatment" to fish and wildlife protection, mitigation and enhancement. The Northwest Power Act imposes substantive as well as procedural obligations on FERC. *Yakima Indian Nation,* 734 F. 2d at 1355.

Likewise, the Committee amendment should in no way be construed to alter FERC's responsibility under section 15 of the Federal Power Act to determine whether a non-power license should be issued if it concludes that power production needs are outweighed by recreational or environmental considerations. See *Yakima*

Indian Nation, 734 F.2d at 1358. Nor should the Committee Amendment be construed to alter FERC's responsibilities under the National Environmental Policy Act to prepare an environmental impact statement prior to issuing a new license. The decision to issue a new license is based on the same inquiry as original licensing, including a consideration of all relevant harms and benefits to public uses related to the project.

Section 10 of the Committee amendment requires that power production facilities at new dam sites meet mandatory terms and conditions of fish and wildlife agencies in order to receive financial benefits under section 210 of the Public Utility Regulatory Policies Act (PURPA). I have reservations whether this provision goes far enough to protect fish and wildlife and other nonpower values associated with a water resource. Furthermore, the Committee amendment does nothing to eliminate the adverse impacts on consumers of requiring utilities under PURPA to purchase power from new hydroelectric dams at "full avoided cost."

Finally, I remain convinced that the consideration of a new license application should take into account the plans of an applicant to implement cost-effective energy efficiency programs. A license for the use of a public water resource is a dedication of that water resource to the benefit of a few who receive electricity from the project. A concomitant responsibility is to use that water resource wisely.

A proceeding on an application to issue a new license is a rare opportunity to reevaluate the best use of a river. Simply because the same resource was committed in the past dues not make the decision to issue a new license a phase in a continuous activity. A new license involves a new commitment of a public resource. And it requires a new look at the best way to utilize a public resource for the benefit of all Americans.

DANIEL J. EVANS.

ADDITIONAL VIEWS OF SENATOR MELCHER

I believe improving two important areas is necessary to make S. 426 an acceptable bill before its passage. The Committee desires to work on some possible compromise on the question of anti-trust protection, now lacking in the legislation. I have seen the comments of my colleague, Senator Metzenbaum, on the importance of the anti-trust provisions. It is my intention to pursue this deficiency in the bill to assure workable provisions on satisfactory anti-trust provisions.

I am troubled by the legislation's failure to provide a workable and practical mechanism to assure transmission services for utilities that are unreasonably denied access to available transmission services.

Congress in this bill alters 65 years of the established law concerning hydroelectric relicensing. The opportunity to solve many of the transmission problems of smaller public and private utilities and rural electric cooperatives could be solved in this bill by using available neighboring utilities' capabilities for transmission of their power. This opportunity should not be wasted since the public interest can be enhanced by mutually beneficial agreements.

In my view, the Commission should be empowered to order the transmission of "wheeling" of power by the large utilities, subject to just and reasonable terms and conditions, wherever a real need exists and such service can be provided without unduly affecting service by the wheeling utility to its retail customers. Since a few large utilities have control over much of our Nation's transmission facilities, joint agreements for wheeling provides for efficient and fair distribution of electricity at reasonable rates to all consumers.

I did not have satisfactory language prepared for presentation to the Committee, but I will be addressing this concern on the floor.

Both the antitrust and the wheeling issues should and must be addressed by Congress as part of this legislation. I urge my colleagues to join with me in seeing that Congress does not pass legislation whose impact would be to solely reduce competition and enhance a privileged position at the expense of other utilities and their ratepayers.

JOHN MELCHER.

MINORITY VIEWS OF SENATOR METZENBAUM

I have serious objections to S. 426 as reported by the Committee. This proposal will, if enacted, not only change profoundly the licensing of federal hydroelectric resources, but also, I fear, unnecessarily impair competition within the electric utility industry.

S. 426 proposes fundamental changes to the relicensing of hydroelectric facilities—replacing a fair competitive process that ensures all utilities a meaningful opportunity to compete—with a process that effectively eliminates competition and virtually guarantees existing licensees renewal of the licenses in perpetuity. It does this by eliminating the longstanding preference afforded publicly-owned utilities, by substituting a tie-breaking preference favoring existing licensees, and by establishing slanted economic criteria which systematically favor existing licensees and large private utilities over publicly-owned utilities.

This dramatic departure from the policy adopted by the Congress 65 years ago in the Federal Power Act is neither necessary nor justified.

I am particularly troubled by the failure of this legislation to address the anticompetitive implications of this rewrite of federal hydro policy. The large privately-owned utilities presently hold the overwhelming number of federal hydro licenses. The inevitable effect of renewing these licenses in perpetuity and denying other utilities and rural cooperatives the opportunity to benefit from these resources, will be to maintain or enhance the dominant market position of the large private utilities. It will virtually preclude publicly-owned utilities and rural electric cooperatives from ever obtaining hydro facilities of their own.

In other words, S. 426 would strengthen the large private utilities at the expense of those utilities and their ratepayers who already are unfairly disadvantaged because they have been arbitrarily denied access to inexpensive hydro resources.

If Congress is intent on altering hydro relicensing, it should at the same time address the basic competitive inequities confronting those without hydro resources by incorporating an antitrust review procedue in the law.

As presently drafted, this legislation directs FERC to consider the effects of a licensing decision on wildlife, fish, energy efficiency, water resources, and other relevant factors. But there is a glaring omission. It does not specifically require consideration of an applicant's compliance with our antitrust statutes: the Magna Carta of our free enterprise system. This omission becomes even more striking in view of the fact that virtually all other federal regulatory agencies are required to consider the effect on competition as part of their public interest determination. It is important to note that even the Reagan Administration (which has pursued a relaxed antitrust policy) has recognized the need for some antitrust review mechanism. While the Department of Justice opposed a sweeping antitrust review provision, it recommended in a letter to the chairman of this committee that

> FERC be required to consider, among other public interest criteria, the effect on competition of the decision to award the license to a particular applicant. The statute should also expressly provide that the Attorney General may participate as a matter of right in any licensing hearing for the purposes of raising and arguing competition-related issues.

I believe that if large private utilities are to be given virtually assured access to our scarce and highly valuable water resources, Congress should provide that this privilege is not used to subject those who lack the benefits of hydro resources to anticompetitive conduct.

There can be no dipute that serious anticompetitive conduct continues to plague the electic utilities industry. Testimony before this Commitee during hearings on this very legislation documented arbitrary refusals by private utilities to wheel power, frequent attempts to block their competitors from obtaining federally-marketed power, and other anticompetitive actions by larger hydro licenseholders against small publicly-owned utilities and rural electric cooperatives. Antitrust review in relicensing provides an efficient and effective means of addressing these problems and of ensuring that the privilege of a hydro license is not abused.

Under the existing Section 10(h) of the Federal Power Act, the competitive effect of hydroelectric licensing has theoretically been a factor in determining whether a particular grant is "in the public interest." But this authority, as the Federal Energy Regulatory Commission itself admits, has rarely been invoked and certainly has not been used in a systematic or constructive fashion. Commissioner Sousa conceded in recent testimony before this Committee that the Commission has not promulgated regulations implementing Section 10(h), that the Commission has never found a violation of Section 10(h), and, indeed, that it is not even clear exactly which antitrust laws witin the scope of Section 10(h).

This legislation should clarify the scope of FERC's authority to consider the implications of its actions on competition in the industry—particularly since S. 426 as reported could have a dramatic negative impact on such competiton.

Antitrust review can—and should—be accomplished simply, efficiently and without delaying the licensing process. The Commission should be required to determine whether granting the license to a particular applicant would create or maintain a situation inconsistent with the antitrust laws. If problems are uncovered, FERC should be authorized to impose considitions on a license, such as requiring provision of transmission services, to remedy the problems, or in the most extreme circumstances, to refuse to grant a license to an applicant. This is not much of a price to pay for rent-free access to these valuable public resources.

The private utilities seek to avoid scrutiny of their conduct as licensees under the antitrust laws by arguing that they are already subject to "pervasive regulation." This old argument to justify immunity under the antitrust law has been repeatedly discredited. (See, e.g., *Cantor* v. *Detroit Edison Co.*, 428 U.S. 579, 596 n.35 (1976); *Otter Tail Power Co.* v. *United States*, 410 U.S. 366 (1973); *Alabama Power Co.*, 13 NRC 1027, 1039–46 (1981), aff'd *Alabama Power Co.* v. *NRC*, 692 F.21 1362 (1982).) The mere fact that private utilities are subject to regulation in other areas does not diminish the importance of the antitrust laws. Indeed, the monopoly status of most private utilities and the perpetual control over federal hydro resources this legislation would provide make it essential for FERC to consider whether this monopoly power has been used to unfairly stifle competition. Antitrust review should be mandatory in conjunction with hydro licensing.

While I believe the Committee has gone too far to protect existing license holders from competition, the legislation does contain important and far reaching environmental protection provisions that will help assure that both initial licenses and relicenses do not create damaging and irreversible environmental harm.

In particular, I am gratified that the committee has agreed to deny PURPA benefits to small hydro projects at new sites unless applicants accept mandatory terms and conditions imposed by state and federal environmental regulators. My original bill, S. 1219 would have banned development of small hydro projects at new sites. The compromise reached in committee is a good one which will go a long way toward protecting our remaining free flowing rivers and streams from the ravages of unchecked development.

HOWARD M. METZENBAUM.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of Rule XXVI of the Standing Rules of the Senate, the Committee notes the following changes in existing law made by the Electric Consumers Protection Act of 1985, as reported (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, and existing law in which no change is proposed is shown in roman):

FEDERAL POWER ACT

PART I

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SEC. 2.

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SEC. 3. The words defined in this section shall have the following meanings for purpose of this Act, to wit:

(1) "public lands" means such lands and interest in lands owned by the United States as are subject to private appropriation and disposal under public land laws. It shall not include "reservations," as hereinafter defined; (16 U.S.C. 796(1))

(2) "reservations" means national forest, tribal lands embraced within Indian reservations, military reservations, and other lands and interests in lands owned by the United States, and withdrawn, reserved, or withheld from private appropriation and disposal under the public land laws; also lands and interests in lands acquired and held for any public purposes; but shall not include national monuments or national perks; (16 U.S.C. 796(2))

(3) "corporation" means any corporation, joint-stock company, partnership, association, business trust, organized group of persons, whether incorporated or not, or a receiver or receivers, trustee or trustees of any of the foregoing. It shall not include "municipalities" as hereinafter defined; (16 U.S.C. 796(3))

(4) "person" means an individual or a corporation; (16 U.S.C. 796(4))

(5) "licensee" means any person, State, or municipality licensed under the provisions of section 4 of this Act, and any assignee or successor in interest thereof; (16 U.S.C. 796(5))

(6) "State" means a State admitted to the Union, the District of Columbia, and any organized Territory of the United States; (16 U.S.C. 796(6))

(7) "municipality" means a city, county, irrigation district, drainage district, or other political subdivision or agency of a State competent under the laws thereof to carry on the business of developing, transmitting, utilizing, or distributing power; (16 U.S.C. 796(7))

(8) "Navigable waters" means those parts of streams or other bodies of water over which Congress has jurisdiction under its authority to regulate commerce with foreign nations and among the several States, and which either in their natural or improved condition notwithstanding interruptions between the navigable parts of such streams or waters by falls, shallows, or rapids compelling land carriage, are used or suitable for use for the transportation of persons or property in interstate or foreign commerce, including therein all such interrupting falls, shallows, or rapids, together with such other parts of streams as shall have been authorized by Congress for improvement by the United States or shall have been recommended to Congress for such improvement after investigation under its authority; (16 U.S.C. 796(8))

(9) "municipal purposes" means an includes all purposes within municipal powers as defined by the constitution or laws of the State or by the charter of the municipality; (16 U.S.C. 796(9))

(10) "Government dam" means a dam or other work constructed or owned by the United States for Government purposes with or without contribution from others; (16 U.S.C. 796(10))

(11) "project" means complete unit of improvement or development, consisting of a power house, all water conduits, all dams and appurtenant works and structures including navigation structures which are a part of said unit, and all storage, diverting, or forebay reservoirs directly connected therewith, the primary line or lines transmitting power therefrom to the point of junction with the distribution system or with the interconnected primary transmission system, all miscellaneous structures used and useful in connection with said unit or any part thereof, and all water-rights, right-of-way, ditches, dams, reservoirs, lands, or interest in lands the use and occupancy of which are necessary of appropriate in the maintenance and operation of such unit; (16 U.S.C. 796(11))

(12) "project works" means the physical structures of a project; (16 U.S.C. 796(12))

(13) "net investment" in a project means the actual legitimate original cost thereof as defined and interpreted in the "classification of investment in road and equipment of steam roads, issue of 1914, Interstate Commerce Commission," plus similar cost of additions thereto and betterments thereof, minus the sum of the following items properly allocated thereto, if and to the extent that such items have been accumulated during the period of the license from earnings in excess of a fair return on such investment: (a) Unappropriated surplus, (b) aggregate credit balances of current depreciation accounts, and (c) aggregate appropriations of surplus or income held in amortization, sinking fund, or similar reserves, or expended for additions or betterments or used for the purposes for which such reserves were created. The term "cost" shall include, insofar as applicable, the elements thereof prescribed in said classification, but shall not include expenditures from funds obtained through donations by States, municipalities, individuals, or

others, and said classification or investment of the Interstate Commerce Commission shall insofar as applicable be published and promulgated as a part of the rules and regulations of the Commission; (16 U.S.C. 796(13))

(14) "Commission" and "Commissioner" means the Federal Power Commission, and a member thereof, respectively; (16 U.S.C. 796(14))

(15) "State Commission" means the regulatory body of the State or municipality having jurisdiction to regulate rates and charges for the sale of electric energy to consumers within the State or municipality; (16 U.S.C. 796(15))

(16) "security" means any note, stock, treasury stock, bond, debenture, or other evidence of interest in or indebtedness of a corporation subject to the provisions of this Act; (16 U.S.C. 796(16))

(17) (A) "Small power production facility" means a facility which—

(i) produces electric energy solely by the use, as a primary energy souce, of biomass, waste, renewable resources, geothermal resources, or any combination thereof; and

(ii) has a power production capacity which, together with any other facilities located at the same site (as determined by the Commission), is not greater than 80 megawatts;

(B) Notwithstanding paragraph (A), no hydroelectric project shall be considered a small power production facility (other than for purposes of section 210(e) of the Public Utility Regulatory Policies Act of 1978) if such project impounds or diverts the water of a natural watercourse other than by means of an existing dam or diversion, unless:

(i) such project is located at a Government dam; or

(ii) such project meets terms and conditions set by fish and wildlife agencies under the same procedure as provided for under section 30(c) of the Federal Power Act;

(iii) for the purposes of this paragraph, the term "existing dam or diversion" means any dam or diversion that is part of a project for which a license has been issued on or before the enactment of this paragraph, or which the Commission determines does not require any construction or enlargement of impoundment structures (other than repairs or reconstruction) except for the addition of flashboards (or similar adjustable devices);

[(B)**]** *(C)* "primary energy source" means the fuel or fuels used for the generation or electric energy, except that such term does not include, as determined under rules prescribed by the Commission, in consultation with the Secretary of Energy—

(i) the minimum amounts of the fuel required for ignition, startup, testing, flame stabilization, and control uses, and

(ii) the minimum amounts of fuel required to alleviate or prevent—

(I) unanticipated equipment outages, and

(II) emergencies, directly affecting the public health, safety, or welfare, which would result from electric power outages;

[(C)**]** *(D)* "qualifying small power production facility" means a small power production facility—

(i) which the Commission determines, by rule, meets such requirements (including requirements respecting fuel use, fuel efficiency, and reliability) as the Commission may, by rule, prescribe; and

(ii) which is owned by a person not primarily engaged in the generation or sale of electric power (other than electric power solely from cogeneration facilities or small power production facilities);

[(D)**]** *(E)* "qualifying small power producer" means the owner or operator of a qualifying small power production facility;

(18)(A) "congeneration facility" means a facility which produces—

(i) electric energy, and

(ii) steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating, or cooling purposes;

(B) "qualifying cogeneration facility" means a cogeneration facility which—

(i) the Commission determines, by rule, meets such requirements (including requirements respecting minimum size, fuel use, and fuel efficiency) as the Commission may, by rule, prescribe; and

(ii) is owned by a person not primarily engaged in the generation or sale or electric power (other than electric power solely from cogeneration facilities or small power production facilities);

(C) "qualifying cogenerator" means the owner or operator of a qualifying cogeneration facility;

(19) "Federal power marketing agency" means any agency or instrumentality of the United States (other than the Tennessee Valley Authority) which sells electric energy;

(20) "evidentiary hearings" and "evidentiary proceeding" means a proceeding conducted as provided in sections 554, 556, and 557 of title 5, United States Code;

(21) "State regulatory authority" has the same meaning as the term "State commission", except that in the case of an electric utility with respect to which the Tennessee Valley Authority has ratemaking authority (as defined in section 3 of the Public Utility Regulatory Policies Act of 1978), such term means the Tenessee Valley Authority;

(22) "electric utility" means any person or State agency which sells electric energy; such term includes the Tennessee Valley Authority, but does not include any Federal power marketing agency.

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SEC. 4.

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SEC. 5.

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SEC. 6. Licenses under this Part shall be issued for a period not exceeding fifty years *unless the Commission determines a shorter period is desirable.* Each such license shall be conditioned upon acceptance by the licensee of all the terms and conditions of this Act and such further conditions, if any, as the Commission shall prescribe in conformity with this Act, which said terms and conditions and the acceptance thereof shall be expressed in said license. Licenses may be revoked only for the reasons and in the manner prescribed under the provisions of this Act, and may be altered or surrendered only upon mutual agreement between the licensee and the Commission after thirty days' public notice. Copies of all licenses issued under the provisions of this Part and calling for the payment of annual charges shall be deposited with the General Accounting Office, in compliance with section 3743, Revised Statutes, as amended (U.S.C., title 41, sec. 20). (16 U.S.C. 799)

SEC. 7. (a) In issuing preliminary permits hereunder or *original* licenses where no preliminary permit has been issued [and in issuing licenses to new licensees under section 15 here] the Commission shall give preference to applications therefor by States and manicipalities, provided the plans for the same are deemed by the Commission equally well adapted, or shall within a reasonable time to be fixed by the Commission be made equally well adapted, to conserve and utilize in the public interest the water resources of the region; and as between other applicants, the Commission may give preference to the applicant the plans of which it finds and determines are best adapted to develop, conserve, and utilize in the public interest the water resources of the region, if it be satisfied as to the ability of the applicant to carry out such plans. (16 U.S.C. 800(a))

(b) Whenever, in the judgment of the Commission, the development of any water resources for public purposes should be undertaken by the United States itself, the Commission shall not approve any application for any project affecting such development, but shall cause to be made such examinations, surveys, reports, plans, and estimates of the cost of the proposed development as it may find necessary, and shall submit its findings to Congress with such recommendations as it may find appropriate concerning such development. (16 U.S.C. 800(b))

(c) Whenever after notice and opportunity for hearing in the Commission determines that the United States should exercise its right upon or after the expiration of any license to take over any project or projects for public purposes, the Commission shall not issue a new license to the original licensee or to a new licensee but shall submit its recommendation to Congress together with such information as it may consider appropriate. (16 U.S.C. 800(c))

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SEC. 8.

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SEC. 9.

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SEC. 10. All licenses issued under this Part shall be on the following conditions:

(a) *(1)* That the project adopted, including the maps, plans, and specifications, shall be such as in the judgment of the Commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water power development, *for the adequate protection, mitigation, and enhancement of fish and wildlife* and for other beneficial public uses, including *irrigation, flood control, water supply and* recreational purposes; and if necessary in order to secure such plan the Commission shall have authority to require the mofification of any project and of the plans and specifications of the project works before approval. (16 U.S.C. 803(a))

(2) In order to ensure that the project adopted will be best adapted to the comprehensive plan described in paragraph (a)(1), the Commission shall consider:

(A) the extent to which the project is consistent with a comprehensive plan (where one exists) for improving, developing or conserving a waterway or waterways affected by the project that is prepared by—

(i) an agency established pursuant to Federal law that has the authority to prepare such a plan; and

(ii) the State in which the facility is or will be located; and

(B) the recommendations of Federal and State agencies exercising administration over fish and wildlife, flood control, navigation irrigation, recreation and cultural resources of the State in which the project is located, and the recommendations of Indian tribes affected by the project.

(3)(A) Upon receipt of an application for a license, the Commission shall solicit recommendations for proposed terms and conditions to be included in the license from the agencies and Indian tribes identified in paragraph (a)(2) of this section.

(B) If any recommendation for a proposed term or condition is received by the Commission at least 30 days prior to issuing any license under this section, the Commission shall explain in writing its reason for rejecting or modifying any such proposed term or condition.

(b) That except when emergency shall require for the protection or navigation, life, health, or property, no substantial alternation or addition not in conformity with the approved plans shall be made to any dam or other project works constructed hereunder of an installed capacity in excess of two thousand horsepower without the prior approval of the Commission; and any emergency alteration or addition so made shall thereafter be subject to such modification and change as the Commission may be direct. (16 U.S.C. 803(b))

(c) That the licensee shall maintain the project works in a condition or repair adequate for the purposes of navigation and for the efficient operation of said works in the development and tranmission of power, shall make all necessary renewals and replacements, shall establish and maintain adequate depreciation reserves for such purposes, shall so maintain and operate said works as not to impair navigation, and shall conform to such rules and regulations as the Commission may from time to time prescribe for the protection of life, health, and property. Each licensee hereunder shall be liable for all damages occasioned to the property of others by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto, constructed under the license, and in no event shall the United States be liable therefor. (16 U.S.C. 803(c))

(d) That after the first twenty years of operation, out of surplus earned thereafter, if any, accumulated in excess of a specified reasonable rate of return upon the net investment of a licensee in any project or projects, under license, the licensee shall establish and maintain amortization reserves, which reserves shall, in the discretion of the Commission, be held until the termination of the license or be applied from time to time in reduction of the net investment. Such specified rate of return and the proportion of such surplus earnings to be paid into and held in such reserves shall be set forth in the license. For any new license issued under section 15, the amortization reserves under this subsection shall be maintained on and after the effective date of such new license. (16 U.S.C. 803(d))

(e) That the licensee shall pay to the United States reasonable annual charges in the amount to be fixed by the Commission for the purpose of reimbursing the United States for the costs of the administration of this Part; for recompensing it for the use, occupancy, and enjoyment of its lands or other property; and for the expropriation to the Government of excessive profits until the respective States shall make provision for preventing excessive profits or for the expropriation thereof to themselves, or until the period of amortization as herein provided is reached, and in fixing such charges the Commission shall seek to avoid increasing the price to the consumers of power by such charges, and any such charges may be adjusted from time to time by the Commission as conditions may require: *Provided,* That when licenses are issued involving the use of Government dams or other structures owned by the United States or tribal lands embraced within Indian reservations the Commission shall, subject to the approval of the Secretary of the Interior in the case of such dams or structures in reclamation projects and, in the case of such tribal lands, subject to the approval of the Indian tribe having jurisdiction of such lands as provided in section 16 of the Act of June 18, 1934 (48 Stat. 984), fix a reasonable annual charge for the use thereof, and such charges may with like approval be readjusted by the Commission at the end of twenty years after the project is available for service and at periods of not less than ten years thereafter upon notice and opportunity for hearing: *Provided further,* That licenses for the development, transmission, or distribution of power by States or municipalities shall be issued and enjoyed without charge to the extent such power is sold to the public without profit or is used by such State or municipality for State or municipal purposes, except that as to projects contracted or to be constructed by States or municipalities primarily designed to provide or improve navigation, licenses therefore shall be issued without charge; and that licenses for the development, transmission, or distribution of power for domestic, mining, or other beneficial use in projects of not more than two thousand horsepower installed capacity may be issued without charges, except on tribal lands within Indian reservations; but in no case shall a license be issued free of charge for the development and utilization of power created by any Government dam and that the amount charged therefor in any license shall be such as determined by the Commission. In the event of overpayment of any charge due under this section shall be made by a licensee, the Commission is authorized to allow a credit for such overpayment when charges are due for any subsequent period. (16 U.S.C. 803(e))

(f) That whenever any licensee hereunder is directly benefited by the construction work of another licensee, a permittee, or of the United States of a storage reservoir or other headwater improvement, the Commission shall require as a condition of the license that the licensee so benefited shall reimburse the owner of such reservoir or other improvements for such part of the annual charges for interest, maintenance, and depreciation thereon as the Commission may deem equitable. The proportion of such charges to be paid by any licensee shall be determined by the Commission. The licensees or permittees affected shall pay to the United States the cost of making such determination as fixed by the Commission. (16 U.S.C. 803(f))

Whenever such reservoir or other improvement is constructed by the United States the Commission shall assess similar charges against any licensee directly benefited thereby, and any amount so assessed shall be paid into the Treasury of the United States, to be reserved and appropriated as a part of the special fund for headwater improvements as provided in section 17 hereof. (16 U.S.C. 803(f))

Whenever any power project not under license is benefited by the construction work of a licensee or permittee, the United States or any agency thereof, the Commission, after notice to the owner or owners of such unlicensed project, shall determine and fix a reasonable and equitable annual charge to be paid to the licensee or permittee on account of such benefits, or to the United States if it be the owner of such headwater improvement. (16 U.S.C. 803(f))

(g) Such other conditions not inconsistent with the provisions of this Act as the Commission may require. (16 U.S.C. 803(g))

(h) That combinations, agreements, arrangements, or understandings, express or implied, to limit the output of electrical energy, to restrain trade, or to fix, maintain, or increase prices for electrical energy or service are hereby prohibited. (16 U.S.C. 803(h))

(i) In issuing licenses for a minor part only of a complete project, or for a complete project of not more than two thousand horsepower installed capacity, the Commission may in its discretion waive such conditions, provisions, and requirements of the Part, except the license period of fifty years, as it may deem to be to the public interest to waive under the circumstances: *Provided,* That the provision hereof shall not apply annual charges for use of lands within Indian reservations. (16 U.S.C. 803(i))

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Sec. 11.

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Sec. 12.

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Sec. 13.

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Sec. 14.

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Sec. 15(a) [That if the United States does not, at the expiration of the original license, exercise its right to take over, maintain, and operate any project or projects of the licensee, as provided in section 14 hereof, the commission is authorized to issue a new license to the original licensee upon such terms and conditions as may be authorized or required under the then existing laws and regulations, or to issue a new license under said terms and conditions to a new licensee, which license] *If the United States does not, at the expiration of the existing license, exercise in right to take over, maintain and operate any project or projects of the licensee, as provided in section 14 of this Act, the Commission may issue a new license to the existing licensee upon such terms and conditions, taking into account existing structures, and facilities, as may be authorized or required under the then existing laws and regulations, or to another applicant under said terms and conditions. If the existing licensee applies for a new license, the Commission shall issue a new license to such existing licensee unless the Commission determines that the plans of another applicant are better adapted to serve the public interest. If the existing licensee does not apply for a new license, the Commission shall issue a new license to the applicant the plans of which are best adapted to serve the public interest. In either case, the Commission shall not issue a license unless it is satisfied that (1) the applicant is able to carry out such plans and (2) the plans represent a cost effective approach to achieving the benefits to be derived therefrom.*

(b) The Commission shall make its determination of which plans are best adapted to serve the public interest on the basis of—

(1) how each plan would develop, conserve, and utilize the water resources of the region in accordance with the provisions of section 10(a) of this Act;

(2) the relative economic impact upon customers served by each applicant upon the failure of such applicant to receive the license, including an assessment of the economic impact upon the customers of an applicant that is the existing licensee that would result from the difference between the compensation to be paid under subsection (c) of this section and the cost of replacement power;

(3) the economic impact, in the case of a non-utility license holder, upon the operation and efficiency of the dependent industrial facility or related activity, its existing employees, and the surrounding community, if the existing licensee fails to receive the new license;

(4) the ability of each applicant to operate and maintain the project in a manner most likely to provide efficient, reliable electric service; and

(5) the need of each applicant for the electricity generated by the project or projects to serve its existing customers including customers served by any electric utility which receives power from the existing licensee.

(c) A license issued under this section may cover any project or projects covered by the original license, and shall be issued on the condition that the new licensee shall, before taking possession of such project or projects, pay such amount, and assume such contracts as the United States is required to do, in the manner specified in Section 14 hereof: *Provided,* That in the event the United States does not exercise the right to take over or does not issue a license to a new licensee, or issue a new license to the original licensee, upon reasonable terms, then the commission shall issue from year to year an annual license to the then licensee under the terms and conditions of the original license until the property is taken over or a new license is issued as aforesaid. (16 U.S.C. 808(a))

[b] *(d)* In issuing any licenses under this section except an annual license, the Commission, on its own motion or upon application of any licensee, person, State, municipality, or State commission, after notice to each State commission and licensee affected, and after opportunity for hearing, whenever it finds that in conformity with a comprehensive plan for improving or developing a waterway or waterways for beneficial public uses all or part of any licensed project should no longer be used or adapted for use for power purposes, may license all or part of the project works for nonpower use. A license for nonpower use shall be issued to a new licensee only on the condition that the new licensee shall, before taking possession of the facilities encompassed thereunder, pay such amount and assume such contracts as the United States is required to do, in the manner specified in section 14 hereof. Any license for nonpower use shall be a temporary license. Whenever, in the judgment of the Commission, a State, municipality, interstate agency, or another Federal agency is authorized and willing to assume regulatory supervision of the lands and facilities included under the nonpower license an does so, the Commission shall thereupon terminate the license. Consistent with the provisions of the Act of August 15, 1953 (67 Stat. 587; 16 U.S.C. 828-828(c)), every licensee for nonpower use shall keep such accounts and file such annual and other periodic or special reports concerning the removal, alteration, nonpower use, or other disposition of any project works or parts thereof covered by the nonpower use license as the Commission may by rules and regulations or order prescribe as necessary or appropriate. (16 U.S.C. 808(b))

(e) A new license may only be issued for a period not to exceed thirty years unless the Commission determines that a longer period is necessary due to substantial new construction or significant redevelopment of the project in question. In no case shall a new license be issued for a period of more than fifty years.

(f) Notwithstanding any other provision of this section, for projects using tribal lands embraced within Indian reservations, the original license for which was issued prior to October 1, 1985 and

for which a new license has not yet become effective by such date, the Commission shall not consider the factors set forth in Sections 15(b)(2) and 15(b)(5) in evaluating the plans of Indian tribes to which such lands belong that apply for a new license.

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SEC. 16.

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SEC. 17.

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SEC. 18.

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SEC. 19.

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SEC. 21.

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SEC. 23.

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SEC. 24.

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SEC. 25.

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SEC. 26. *(a)*. That the Attorney General may, on request of the commission or of the Secretary of the Army, institute proceedings in equity in the district court of the United States in the district in which any project or part thereof is situated for the purpose of revoking for violation of its terms any permit or license issued hereunder, or for the purpose of remedying or correcting by injunction, mandamus, or other process any act of commission, or omission in violation of the provisions of this Act or of any lawful regulation or order promulgated hereunder. The district courts shall have jurisdiction over all of the above-mentioned proceedings and shall have power to issue and execute all necessary process and to make and enforce all writs, orders, and decrees to compel compliance with the lawful orders and regulations of the commission and of the Secretary of the Army, and to compel the performance of any condition imposed under the provisions of this Act. In the event a decree revoking a license is entered, the court is empowered to sell the whole or any part of the project or projects under license, to wind up the business of such licensee conducted in connection with such project or projects, to distribute the procees to the parties entitled to the same, and to make and enforce such further orders and decrees as equity and justice may require. At such sale or sales the vendee shall take the rights and privileges belonging to the licensee and shall perform the duties of such licensee and assume all outstanding obligations and liabilities of the licensee which the court may deem equitable in the premises; and at such sale or sales the United States may become a purchaser, but it shall not be required to pay a greater amount than it would be required to pay under the provisions of section 14 hereof at the termination of the license. (16 U.S.C. 820)

(b) The Commission may—

(1) after opportunity for a hearing on the record revoke for significant violation of its term any permit, license, or exemption issued pursuant to this Part; and

(2) issue such other orders as it deems necessary to ensure compliance with the provisions of this Part, or of any lawful regulation or order promulgated thereunder, or of any permit, license, or exemption issued pursuant to this Part.

(c) the Commission may institute proceedings in the district court of the United States in the district in which the project or part thereof is situated for the purpose of enforcing an order of the Commission under subsection (b) of this section. The court shall have the same powers as provided for under subsection (a) of this section.

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SEC. 27.

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SEC. 28.

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SEC. 29.

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SEC. 30. (a) Except as provided in subsection (b) or (c), the Commission may grant an exemption in whole or in part from the requirements of this part, including any license requirements contained in this part, to any facility (not including any dam or other impoundment) constructed, operated, or maintained for the generation of electric power which the Commission determines, by rule or order—

(1) is located on non-Federal lands, and

(2) utilizes for such generation only the hydroelectric potential of a manmade conduit, which is operated for the distribution of water for agricultural, municipal, or industrial consumption and not primarily for the generation of electricity.

[(b) The Commission may not grant any exemption under subsection (a) to any facility the installed capacity of which exceeds 15 megawatts.]

(b) Exemptions granted under subsection (a) of this section shall be granted for a period not to exceed thirty years unless the Commission determines that a longer period is necessary due to substantial new construction or significant redevelopment of the project in question. In no case shall an exemption be granted for a period of more than fifty years. The Commission may not grant any such exemption to any facility the installed capacity of which exceeds 15 megawatts.

(c) In making the determination under subsection (a) the Commission shall consult with the United States Fish and Wildlife

Service and the State agency exercising administration over the fish and wildlife resources of the State in which the facility is or will be located, in the manner provided by the Fish and Wildlife Coordination Act (16 U.S.C. 661, et seq.), and shall include in any such exemption—

(1) such terms and conditions as the Fish and Wildlife Service and the State agency each determine are appropriate to prevent loss of, or damage to, such resources and to otherwise carry out the purposes of such Act and

(2) such terms and conditions as the Commission deems appropriate to insure that such facility continues to comply with the provisions of this section and terms and conditions included in any such exemption.

(d) Any violation of a term or condition of any exemption granted under subsection (a) shall be treated as a violation of a rule or order of the Commission under this Act. (16 U.S.C. 824)

PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978

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SIMPLIFIED AND EXPEDITIOUS LICENSING PROCEDURES

SEC. 405. (a) ESTABLISHMENT OF PROGRAM.—The Commission shall establish, in such manner as the Commission deems appropriate, consistent with the applicable provisions of law, a program to use simple and expeditious licensing procedures under the Federal Power Act for small hydroelectric power projects in connection with existing dams.

(b) PREREQUISITES.—Before issuing any license under the Federal Power Act for the construction or operation of any small hydroelectric power project the Commission—

(1) shall assess the safety of existing structures in any proposed project (including possible consequences associated with failure of such structures), and

(2) shall provide an opportunity for consultation with the Council on Environmental Quality and the Environmental Protection Agency with respect to the environmental effects of such project.

Nothing in this subsection exempts any such project from any requirement applicable to any such project under the National Environmental Policy Act of 1969, the Fish and Wildlife Coordination Act, the Endangered Species Act, or any other provision of Federal law.

(c) FISH AND WILDLIFE FACILITIES.—The Commission shall encourage applicants for licenses for small hydroelectric power projects to make use of public funds and other assistance for the design and construction of fish and wildlife facilities which may be required in connection with any development of such project.

(d) EXEMPTIONS FROM LICENSING REQUIREMENTS IN CERTAIN CASES.—The Commission may in its discretion (by rule or order) grant an exemption in whole or in part from the requirements (including the licensing requirements) of part I of the Federal Power Act to small hydroelectric power projects having a proposed installed capacity of 5,000 kilowatts or less, on a case-by-case basis or on the basis of classes or categories or projects, subject to the same limitations (to ensure protection for fish and wildlife as well as other environmental concerns) as those which are set forth in subsection (c) and (d) of section 30 of the Federal Power Act with respect to determinations made and exemptions granted under subsection (a) of such section 30: and subsection (c) and (d) of such section 30 shall apply with respect to actions taken and exemptions granted under this subsection. Except as specifically provided in this subsection, the granting of an exemption to a project under this subsection shall in no case have the effect of waiving or limiting the application (to such project) of the second sentence of subsection (b) of this section. *Exemptions shall be granted for a period not to exceed thirty years unless the Commission determines that a longer period is necessary due to substantial new construction or significant redevelopment of the project in question. In no case shall an exemption be issued for a period of more than fifty years.*

APPENDIX

OFFICIAL COMMITTEE FILE

UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

September 16, 1985

B-220261

SENATE COMMITTEE ON
ENERGY AND NATURAL RESOURCES
SEP 23 1985
WASHINGTON, D.C. 20510

The Honorable Edward J. Markey
Chairman, Subcommittee on Energy
Conservation and Power
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

Subject: Evaluation of Cost Estimates Related to the Relicensing of Hydroelectric Projects (GAO/RCED-85-169)

Your letter of July 11, 1985, requested that we review widely varying cost estimates associated with relicensing hydroelectric projects. These cost estimates were presented to your Subcommittee during its consideration of legislation to reform the process used by the Federal Energy Regulatory Commission to relicense hydroelectric projects. After providing your staff with a briefing on our work on August 20, 1985, they asked us to summarize the results in a report to you by September 16, 1985.

The enclosed report evaluates the cost estimates for transferring (1) the licenses of three projects in California from a private utility to municipalities and (2) all investor-owned hydroelectric projects nationwide. For the California projects we discuss the methodology, data, and assumptions used in the studies, and recalculate the estimates to reflect other assumptions which we believe may be at least as valid and could have a substantial effect on the costs. We did not recalculate the estimates for the nationwide cost of transferring all licenses because we believe that numerous uncertainties preclude an accurate estimate of the nationwide cost impact at the present time. We do, however, discuss the methodologies, data, and assumptions of the estimates that were presented to the Subcommittee.

As arranged with your office, we are sending copies of this report to appropriate House and Senate committees and other interested parties on the date it is issued. We will also make copies available to others upon request.

Sincerely yours,

Ralph Carlone for
J. Dexter Peach
Director

Enclosure

EVALUATION OF
COST ESTIMATES RELATED TO
THE RELICENSING OF HYDROELECTRIC PROJECTS

INTRODUCTION

The Federal Energy Regulatory Commission (Commission) is authorized to issue licenses to nonfederal entities for building and operating hydroelectric facilities for the development of the nation's water resources. The licenses are issued for a period up to 50 years. The Commission is required by the Federal Power Act (16 USC 800a, as amended) to give preference to states and municipalities (municipality), over a privately owned utility (utility), whenever the two entities file equally well adapted development plans for the same project.

Upon the expiration of a license, the Commission is authorized to grant a new license. A new license is not automatic and is subject to competition. Many of the licenses originally issued to utilities have expired, and the utilities have applied for relicensing. In some instances municipalities have filed competing applications for the license.

The doctrine of preference for municipal applicants at the time of relicensing has been contested. In a 1980 case the Commission ruled that the doctrine of preference applied at the time of license renewal as well as the time of original licensing and awarded the license in question to the city of Bountiful, Utah. That ruling was upheld in federal appeals court. However, in 1983 the Commission changed its position and ruled that the doctrine of municipal preference applied only to the new licensing of a hydroelectric project and not for an application for relicensing by the current license holder. That ruling is currently under review by a federal appeals court. In the interim, several bills have been introduced in the Congress (H.R. 44, H.R. 1815, H.R. 1959, and S. 426) to clarify or modify certain provisions of the Federal Power Act relating to hydroelectric project licensing, including the doctrine of municipal preference.

As part of congressional hearings on these bills, various cost estimates of the impact of transferring hydroelectric projects from the original licensee to a new licensee (presumably a municipality under the doctrine of preference) have been submitted in reports and testimony. However, these estimates vary greatly. For example, two studies estimate the cost of transferring three Pacific Gas and Electric Company (PG&E) projects to competing municipalities as either $18.3 million or $147.5 million per year. On a nationwide basis two other studies have presented the cost of transferring all investor-owned hydroelectric licenses to municipalities as between $200 million and $4.5 billion per year.

Objectives, Scope, and Methodology

The Chairman, Subcommittee on Energy Conservation and Power, House Committee on Energy and Commerce, by letter dated July 11, 1985, requested that we review the cost estimates presented to the Subcommittee on the impacts of transferring the licenses of the three PG&E projects and all investor-owned utility projects nationwide. We were asked to determine the basis for the estimates and the reasons for the differences. In subsequent discussions with the subcommittee staff, we were asked to analyze the methodology, assumptions, and data in the two PG&E studies and to reflect the effect on the cost estimates of changes which we believe would be valid.

In order to provide a response by September 16, 1985, and as agreed with the Subcommittee staff, we did not do an exhaustive analysis of the studies nor develop an independent GAO estimate of the costs but merely recalculated estimates for the PG&E projects with the changes in assumptions that we believe may be at least equally valid and result in a substantial difference in the cost estimates. We did not recalculate the nationwide cost estimates, but discussed the similarities, differences, and reliability of these estimates to provide a perspective for interpreting them. To determine the basis for the existing cost estimates we

--interviewed the authors of the studies about preparation of the cost estimates;

--reviewed the studies to identify key methodologies, assumptions, and data differences;

--interviewed Commission officials familiar with hydroelectric licensing and electric rate making; and

--reviewed Commission files to verify selected data used in preparing the cost estimates.

As you requested we did not obtain agency comments. Our work was conducted in Washington, D.C., during July and August 1985.

BACKGROUND

Various studies have used two different cost components in calculating the costs associated with transferring hydroelectric licenses from the original licensee to a new licensee. These components are (1) the increase in the average cost to the remaining customers of the original licensee, due to the necessity of allocating fixed charges for fossil and nuclear fuel and other operating expenses to a smaller number of customers[1] and (2) additional costs incurred by the utility to purchase or generate power to replace the output from the transferred project.

The increase in average cost to the remaining customers results from a reallocation of both the fuel and plant costs (costs used in determining the base rate) associated with generating power to a smaller customer base. For example, if an existing wholesale customer takes over a project license, then that customer does not need to purchase its power from the original license holder. As a result, sales of the original license holder are reduced but many costs remain fixed such as the cost of fuel to run the utility's coal- and oil-fired generating units. These fixed costs must now be reallocated to a smaller customer sales base which results in an increase in the average cost of power to the remaining customers.

Replacement power costs are costs incurred by the utility to replace the output of power lost to the utility when a project license is transferred. The utility can either generate the additional power from existing plants or purchase the additional power from other sources. Replacement power costs can also include the cost of building or purchasing a new power plant and the fuel to generate the electricity lost by the transfer of the hydroelectric license.

One additional factor considered in determining the cost of transferring the hydroelectric licenses is the benefit gained from reduced ownership and operating expenses associated with the licensed project. For example, expenditures for property taxes, depreciation, maintenance, and similar items directly applicable to the transferred project will be eliminated after the transfer. The benefit from these reduced expenditures is offset against the increased costs to estimate the net costs of the transfer.

COST ESTIMATES FOR TRANSFERRING THE LICENSES OF PG&E PROJECTS

Two estimates were presented to the Subcommittee on the cost of transferring the licenses of three PG&E hydroelectric projects to competing municipalities. A study prepared by PG&E estimated the cost at $147.5 million per year in increased costs to individual customers and for replacement power. Another study, prepared by R.W. Beck and Associates for the competing municipalities,[2] estimated that PG&E would incur $18.3 million per year in additional costs.

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[1] Not all analysts agree with the concept of treating the increase in average costs to remaining customers as a legitimate cost increase. These analysts argue that in theory a different group of customers, essentially those of the new owner, receive a corresponding decrease in their costs. In effect, the analysts argue that the net cost to the economy is zero.

Table 1.1 summarizes the major differences in the estimates.

Table 1.1

Cost Component	PG&E Estimate	R.W. Beck Estimate	Variance
Increased Average Cost Allocated to Remaining Customers			
Fuel Costs	$46,243,000[a]	Not estimated	$46,243,000
Base Rate Costs	25,865,000	Not estimated	25,865,000
Subtotal	$72,108,000	Not estimated	$72,108,000
Replacement Power Costs	$109,443,000[b]	$40,338,229[c]	$69,104,771
Total Cost	$181,551,000	$40,338,229	$141,212,771
Reduced Ownership and Operating Costs	-34,038,000	-22,023,458	-12,014,542
Net Total Cost	$147,513,000	$18,314,771	$129,198,229

[a] Calculated for 100 percent of the output from Mokelumne and 7.13 percent from the Rock Creek-Cresta and Haas-Kings River projects.

[b] Calculated at 6.9 cents per kilowatt hour for 92.87 percent of the output from Rock Creek-Cresta and Haas-Kings River projects.

[c] Calculated at 6.6 cents per kilowatt hour for 35.39 percent of the output from Rock Creek-Cresta and Haas-Kings River projects.

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[2] Several groups are competing for three PG&E projects. The city of Santa Clara, California, is competing for the Mokelumne project license. A consortium made up of the Southern California cities of Anaheim, Azusa, Banning, Colton, and Riverside, the Sacramento Municipal Utility District (SMUD), and the Northern California Power Authority (NCPA) made up of the cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompac, Palo Alto, Redding, Roseville, Santa Clara, Ukiah, and the Plumas-Sierra Cooperative are competing for the Rock Creek-Cresta and Haas-Kings River project licenses. The cities of Lodi, Redding, Santa Clara, and Ukiah are not participating in the competition for the Rock Creek-Cresta project.

The following sections discuss the differences in the methodologies, assumptions, and data used to develop the above cost estimates.

Methodology

While the methodologies for calculating these costs are straightforward from a mathematical sense, the practical use of the methodologies depends on which of the following questions the analyst is attempting to address.

--What additional costs will the utility's customers incur from the license transfer?

--What additional costs will the utility incur from the license transfer?

The PG&E study was undertaken to answer both questions according to its author. As such, it includes both the increase in average cost and the replacement power cost components. On the other hand, the R.W. Beck study was designed, according to the official responsible for the study, to address the second question. As a result, the study includes an analysis of only the replacement power cost component. This difference accounts for about $72 million of the total variation in the PG&E and R.W. Beck cost estimates. Both studies also analyzed the benefit from reduced operating and ownership expenses.

Assumptions

In calculating the costs of transferring the project licenses, both studies made certain assumptions related to the need to replace power, the source of that replacement power, and its cost. The key assumption that accounted for most of the difference in the study estimates of replacement power costs was the assumption on the amount of power needing to be replaced. The PG&E study assumed that 92.87 percent of the output from two projects (Rock Creek-Cresta and the Haas-Kings River) needed to be replaced and that none of the power from the third project (Mokelumne) needed to be replaced. While the R.W. Beck study agreed on the Mokelumne project, it assumed that only 35.39 percent of the power from other two projects needed to be replaced.

The PG&E study assumed that the output of power from all lost projects must be replaced unless there is a corresponding decrease in the demand for power. For example, in the case of the Mokelumne project, the city of Santa Clara, which normally buys power from PG&E, is competing for the project license. Santa Clara buys approximately the same amount of power from PG&E that is generated by the Mokelumne project and will presumably not need that power if it wins the project license. As such, the loss of power will be offset by a reduced demand for power from Santa Clara which means that, in this case, PG&E will not have to purchase or generate any replacement power. The R.W. Beck study concurs in this treatment of the need for replacement power from the Mokelumne project.

The studies do not agree, however, on the need for replacing the output from the Rock Creek-Cresta and Haas-Kings River projects. The PG&E study, using the same assumption discussed above, concludes that there will only be about a seven percent reduction in demand to offset the lost output since most of the cities competing for the license do not buy any power from PG&E. As a result, PG&E concludes that about 93 percent of the power needs to be replaced to meet its customers' needs. In comparison, the R.W. Beck study uses different assumptions to estimate the need for replacement power at about 35 percent. The R.W. Beck study assumed that only the output from the projects that would go to municipalities that do not normally purchase their power from PG&E and are not in the PG&E service area needed to be replaced. The Beck study assumed that there would be a large scale (about 2 billion kilowatt hours) shuffling of wholesale customers and suppliers within the service area. This difference accounts for most of the $69 million of the variation in the PG&E and R.W. Beck cost estimates for the three projects.

Another assumption made in both studies was that the cost of replacement power would be calculated at the marginal cost rate. This is generally the highest rate at which a utility generates or purchases power because it represents the addition of a new plant and new fuel costs to generate the next unit of power. This assumes that the utility's present plants are all producing at full power or needed as emergency reserves. As a result, the utility must either build a new plant or, alternatively, purchase the power at an equivalent rate from another source with excess capacity.

Data

The two studies used different data to calculate some costs related to the transfer of the PG&E project licenses. For example, the PG&E study used a figure of 2,796 million kilowatt hours as the power generated by the three projects and 6.9 cents per kilowatt hour as the cost of replacement power. The corresponding figures for the R.W. Beck study were 2,673 million kilowatt hours and 6.6 cents. These data differences account for some variation in the cost estimates between the two studies. However, the differences were minor when compared to those caused by the differences in methodology and assumptions and are included in the estimates discussed above.

Finally, there was a difference in the data used to calculate the benefits from reduced ownership and operating expenses. The PG&E study, using actual company data from the projects, calculated the benefit as being about $12 million greater than the R.W. Beck study, which extrapolated from published summary data.

Recalculation of the Cost Estimates

Within the timeframe allocated for this project, we were not able to construct an independent estimate of the costs. We were, however, able to evaluate certain assumptions and data used in the studies. As a result of this evaluation, we believe two key assumptions regarding the amount of power needing to be replaced and the cost of such power could be viewed somewhat differently than is done in either of the studies. We, therefore, recalculated the estimates using the different assumptions but employing the same methodology.

Regarding the amount of replacement power needed, PG&E estimated that about 93 percent of the power would have to be replaced and R.W. Beck estimated only about 35 percent would have to be replaced. The bases for these estimates are discussed above.

There are many factors that make it difficult to determine whether the PG&E or R.W. Beck study assumptions are more accurate. For example, the power output lost by PG&E, if the project licenses are transferred, will not be lost from the California power supply, rather only the ownership will change. The power would still be available for sale by the new owner, perhaps even to the original customers. From that point of view, the R.W. Beck assumption that there will be a shuffling of wholesale supply and demand appears to have merit. On the other hand, to assume, as in the R.W. Beck study, that there will be a large shuffling of wholesale supply and demand overlooks a number of complicating factors. There are potential problems associated with long-term contracts between PG&E and its wholesale customers, wholesale customers' location relative to the projects, transmission line availability, and also the availability and price of the power.

Because of these difficulties, we modified the R.W. Beck study assumption. We assumed that PG&E would continue serving its wholesale customers, except for those customers which already have a relationship with the consortium of municipalities competing for the projects. We believe that where such a relationship already exists, there is a legitimate rationale for assuming that a shuffling of wholesale purchasers and suppliers could take place. For example, the city of Lodi is a member of NCPA, but is not participating in NCPA's competition for the project licenses. As such, PG&E counts Lodi as a continuing customer and counts power sales to Lodi as needing to be replaced by purchases of new power. On the other hand, we assumed that since Lodi is a member of NCPA and receives its power from PG&E indirectly through NCPA, that Lodi would switch its purchases to NCPA once NCPA has its own power source. Such a switch would reduce PG&E's need to replace power by an equivalent amount. We made similar reductions for direct sales to NCPA, to the city of Lompac, and to SMUD which receives power under an integration agreement with PG&E. We calculated that these changes would result in the need for replacement power at about 75.28 percent of the output of the Rock Creek-Cresta and Haas-Kings River projects.

Regarding the cost of replacement power, both the PG&E and R.W. Beck studies assumed that replacement power would be purchased at the marginal cost rate of power. This assumes that all existing plants are operating at full capacity or are needed as emergency reserves. Therefore, to generate additional units of power the company needs to build or buy new plant capacity and then burn additional fuel to generate power. This is a generally conservative approach to estimating the cost of replacement power because it assumes the worst case scenario and predicts the highest possible cost consequences.

Using Commission records (FERC Form-1), we determined that PG&E's reserve capacity for the 1985-88 time frame is about 32 percent of its total generating capacity. This figure is significantly higher than the 15-20 percent reserve margin generally considered sufficient by industry standards for a utility with multiple power plants and types (oil, gas, hydro, and nuclear) of generating capacity. Further, PG&E predicts reserve capacity to remain at about the same level over the next 10 years even after considering future growth in demand. As such, we believe that the most likely source of replacement power would be from PG&E's internal reserve capacity, not from building or purchasing new capacity at the marginal cost rate. By using internal reserve capacity, we estimate the cost of replacement power costs at 4.3 cents per kilowatt hour, rather than the 6.9 cents used by PG&E.

We did not calculate a separate amount for the benefit gained from reduced ownership and for operating expenses resulting from the licenses' transfer. Instead, we used PG&E's calculation since it was based on actual company data. Use of PG&E's estimate has the effect of reducing the cost of the transfer to PG&E customers.

Such changes in assumptions result in a revised cost estimate, including increased average costs of $105.1 million. Table 1.2 shows the major cost components of the revised cost estimate.

Table 1.2

Cost Component	Revised Estimate
Increased average cost Allocated to Remaining Customers	
Fuel costs	$57,731,000[a]
Base rate costs	25,865,000
Subtotal	83,596,000
Replacement power costs	$55,542,000[b]
Total	139,138,000
Reduced ownership & operating costs	-34,038,000
Net total Cost	$105,100,000

[a] Calculated for 100 percent of the output from Mokelumne and 24.72 percent from the Rock Creek-Cresta and Haas-Kings River projects.

[b] Calculated at 4.3 cents per kilowatt hour for 75.28 percent of the output from Rock Creek-Cresta and Haas-Kings River projects.

NATIONWIDE COST ESTIMATES FOR TRANSFERRING PROJECT LICENSES

Two separate estimates were presented to the Congress on the nationwide impacts of transferring hydroelectric project licenses. The Edison Electric Institute (EEI) prepared a study of all investor-owned hydroelectric projects that calculated the fuel cost savings to customers from those projects as $1.5 billion to $4.5 billion per year.[3] The $1.5 billion represents the cost of replacing all the power generated by the 366 projects with coal-fired generation; the $4.5 billion is the corresponding amount for oil-fired generation. Although the EEI study did not attempt to directly quantify the costs of transferring project licenses, its estimated fuel cost savings have been used as one measure of the impact on utility customers.

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[3] In 1984, EEI calculated the fuel cost savings as $1 to $3.5 billion per year. In 1985, EEI published the revised fuel cost savings as discussed above.

The Consumer Energy Council of American (CECA) Research Foundation estimated the costs of transferring all 366 investor-owned hydroelectric utility licenses at $200-300 million per year. The CECA estimate represented the increase in average costs allocated to the remaining customers.

Methodologies, Assumptions, and Data of Nationwide Studies

The two studies of the nationwide impact of transferring hydroelectric licenses used different methodologies. The EEI study did not calculate the cost of transferring the licenses, but it estimated the savings to utility customers from using hydropower versus coal or oil to generate an equivalent amount of electric power. The EEI study did not account for either the increase in average costs as a result of the transfer or the benefits from reduced operating and ownership costs. The CECA study, by comparison, calculated the increase in average fuel and base rate costs to utility customers. Although performed on an aggregate basis, the CECA study used methodology similar to that used by PG&E in calculating the company-specific costs for transferring PG&E project licenses. The CECA study did not calculate replacement power costs but did calculate the benefit from reduced operating and ownership costs as part of its calculation of the average cost increase.

The studies used different assumptions in calculating the nationwide impact of transferring hydroelectric licenses. The EEI study calculates the current fuel savings for all investor-owned hydroelectric projects. When this fuel savings estimate is used to represent the cost to utility customers of transferring project licenses, it requires the user to assume that all licenses will be transferred and that all project output needs to be replaced. Conversely, the CECA study assumes that none of the power needs to be replaced. Instead, the CECA study assumes that there will be a shuffling of wholesale suppliers and customers. Therefore, the CECA study assumes that the only impact on customers is the increase in the average fuel and base rate costs.

The two studies also used different data to calculate the impact of transferring project licenses. However, since the studies were not attempting to determine the same impact, the use of different data was not relevant to the variation in the studies' outcomes.

Uncertainties in Nationwide Cost Estimate

Both the EEI and CECA studies on the impact of transferring hydroelectric project licenses are based on assumptions that are difficult to support under current circumstances. For example, both assume that all licenses will be transferred, although the CECA study is highly critical of this assumption and uses it solely for comparison purposes. Another assumption is that either all or none of the power from all projects needs to be replaced.

Whether or not a license is transferred depends to some extent on individual project circumstances, such as the project's size and location and the interest of a competing group. For example, only about 10 of the 125 projects relicensed since 1970 have been challenged. However, this probably does not indicate adequately the level of interest in competing for project licenses, since the issue of preference for municipalities was and is not clear. Until the preference issue is clarified in the current court case or through congressional action, and until individual licenses come up for renewal, no means exist to determine the interest of competing municipalities. As such, neither the number of licenses that will be competed for nor the number that might be transferred can be determined with any accuracy.

In addition, the amount of power that might need to be replaced is subject not only to the unpredictability of competition for a project but also to individual project circumstances, as discussed in the case of the PG&E projects. Therefore, at the present time, the cumulative nationwide impact cannot be accurately predicted.

The combination of these two factors makes estimating the nationwide impact a highly speculative effort. Because of the difficulty in predicting the number of licenses that might be competed for, the number subsequently transferred, and the need to replace power from these licenses, no reliable means exist at this time to estimate the nationwide impact on customers.